THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES

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Plans for the Year.

There is nothing like systematic arrangement, in facilitating the operation of complex business. What endless confusion would result from a hap-hazard management of such vast establishments as the New-York Central and Erie Railroads! The stockholders and bond-owners would get rather small dividends, if the trains were all run with the same irregularity that some farmers perform their labors—instead of the precision which marks the time for the passage of every train for months in advance. It is easy to understand how a railway company would fail from the blunders of confusion; but the smaller loss, but equally great as compared with the capital, resulting from bungling plans in farming, or no plans at all, is often overlooked. There is nothing where so small an outlay would result in so great profit, as well digested plans for the year to be promptly and skillfully executed. A watchmaker might about as well think of placing the parts of his machine together with his eyes shut, as for cultivators of the soil to hobble along with a year's work, with no system to guide them.

Agricultural papers teach many valuable improvements. There is probably not one careful reader in a thousand, that would not be benefitted many dollars every year by the various hints he receives, *provided he only put the best of them into practice.* He often finds suggestions which his good sense tells him would be very useful. But why were they not tried? "Ah! he intended to have done so, but in the multitude of thoughts and labors, they were overlooked till just a few days too late!" Now, how would a banker succeed, if he should trust his memory alone to remind him of the day when discounted notes are due? Why cannot the farmer adopt the same systematic method of laying before his eye the work of the season, that the banker's *tickler* performs in placing before him the required money transaction of each successive day? We have before made the suggestion (but it will bear many repetitions,) of a very simple and easy mode to obviate so many disastrous delays from forgetfulness, as occur on nearly every farm. Devote a page in a small pocket blank-book to each week's work during the season, and mark it distinctly with its proper date. Enter under the proper head every suggestion which may occur during the present winter's reading. Additional suggestions will occur at all periods throughout the season, and should be entered at the time. In a year or two, such a memorandum book if properly used, will be worth hundreds of dollars annually to every extensive farmer, and to the smaller one at least an equal proportion. So much for securing seasonable attention to the operations of the year.

But there are other important departments of systematic farming. The skillful railway-manager adopts a *practicable* time table, and sees that all the trains are worked to the specified time. The good farmer should adopt a similar mode of management. He should bring before his eye a list of all the important operations of the season — and he must so arrange them, — fit them together, — and add to or curtail the extent of each, that all may be well performed in season. A crop of five acres planted early, well put in, and properly cultivated, may yield more nett profit than ten acres a fortnight too late, and badly managed because there is other clashing work at the time. Too much plowing for his teams in spring; too much hoeing for his men afterwards; too much haying or harvesting for them to perform at midsummer; or a larger extent of autumn crops than he can secure in proper order,—will all operate to the disadvantage of the farmer. If he hires men by the month and for the season, he wishes to avoid a more costly resort to day hands, and therefore all these different crops and operations, must be so arranged that the labors of the establishment will move on uniformly, quietly, efficiently, without delay or confusion, and with the clock-work precision which marks the superintendence of the successful railway manager.

There are several other important points, which at present need be only briefly mentioned. *Rotation of crops* is an indispensable requisite to systematic farming. He who has never properly divided his farm into fields, nor brought their yearly occupation under a regular, unalterable succession of crops, must spend time and thought every year to determine how to plant his fields, and often become so confused as to change his mind half a dozen times before he is done with the task, and probably end in laying out conflicting labors for the year. Systems of rotation are given elsewhere; but we can state briefly some of the best for this country, which may be modified according to circumstances. For four fields, of nearly equal size,—1st year, corn on sod, with roots and manure; 2d, wheat; 3d and 4th, clover,—meadow and pasture. For six or seven fields,—1st, corn, &c.; 2d, barley, oats, beans or peas; 3d, wheat; 4th, 5th, 6th and 7th, clover and timothy, the first two years for pasture, the last two for meadow.

Good Implements constitute another requisite. A poor tool or machine which is liable to break or get out

of order, may, by failing at a critical period, derange the whole machinery of the farm, at great loss, and requiring a long time to restore. A badly made horse-rake once broke, by which delay the rain came on five acres of dried hay, before it could be drawn in, lessening its value two dollars on the ton, adding several more days' labor to spreading and drying it a second time, and delaying the workmen so that an adjoining wheatfield was not harvested and housed till a long rain produced sprouting in the grain, and the whole delay, first and last, prevented the owner from preparing his wheat ground in time for early autumn sowing, by which he lost fifty dollars by estimate the following summer, through the attacks of the wheat-midge. This was almost as disastrous as Dr. Franklin's illustration of neglect—"For want of a nail the shoe was lost, for want of a shoe the horse was lost, for want of a horse the rider was lost."

In planning the work of the year, it is advisable that provision be made for trying *experiments*. Not costly ones, but those which are simple and easily tried, and which determine important questions. We have known farmers to work from *guessing*, on a single subject for twenty years, where results would vary profits hundreds of dollars on the long run, and where the question of profit might have been determined with less than one day's labor. There are now many questions on which cultivators continue to dispute, without resorting to practical tests, but which a proper entry in the memorandum-book already described, would enable any cultivator easily to settle — as for example, thick and thin seeding of grass and grain; deep and shallow planting; late and early mowing; comparative products of corn in hills and drills, and the same of potatoes; the value of frequent (weekly or daily) cultivation of corn by horse power; depth of burying manure; comparative profit of selling grain or the animal fattened on it, &c. In all investigations of the kind, a convenient platform-scale, by assisting in the settlement of the various questions constantly occurring in the feeding and management of animals, would soon repay its cost.

Millet—Hungarian Grass.

Millet, under the name of Hungarian Grass, as explained in our last paper, seems to have been pretty extensively tried in Iowa the past season. A correspondent of the Prairie Farmer, Mr. PHILIPS of Butler co., states that the premium acre at the last fair of that county, yielded eight tons and two hundred pounds of well cured hay. This grew on fresh hazel-brush land. Other competitors came within a few hundred pounds of this weight. "The average produce," says Mr. P., "on our prairie lands, is about five tons per acre. This grass is an annual, cultivated pretty much as oats, though somewhat later. Any time in May it does well here. One-third of a bushel per acre is about the proper quantity, covered very shallow, and harvested when the blades and head begin to turn yellow."

Among the recommendations which have been alleged in favor of cultivating this variety of millet, we have noted the following: 1. The season for sowing the seed is a comparatively leisure one, being later than that for barley, oats, spring wheat, &c. 2. The season for harvesting it comes after the hurrying time, or that for securing wheat, barley, oats. rye and clover. 3. It is said to be very nutritious. 4. Cattle, horses, and stock generally, eat it with avidity, particularly when the seed is allowed to remain on it. Mr. P. states that he has been informed that horses will keep fat on it without any other grain, even when doing moderate work. It has a very heavy head of seed, yielding from fifteen to twenty bushels per acre.

Successful Draining with Stone.

MESSRS. EDITORS—A year ago last fall I stated to the readers of the Country Gentlemen my plan of underdraining with stone, which I was then doing. I can now say that it has worked well. By this means a piece of cold, wet, uneven land has been dried sufficiently to plow and level down, which could not have been done before; and it produced a good crop of corn last summer. It ripened very early too for the season. I consider the stalks worth as much for fodder, as the sour grass that grew there would have been. This last fall I have drained the remaining four acres of my eight acre meadow, in the same way, viz., we lay out the short drains forty feet apart—though we vary from this rule some; when it comes near a wet hollow we go through that—we cut them three and a half feet deep, two feet wide at the top, and slant down to six inches on the bottom. We scrape the mud from the bottom perfectly clean, so that it is hard, like rock. This thoroughly done, we begin to fill with small round stone, taking care that no one stone is large enough to reach across, for the first layer, and so on five or six inches; then the cobble and broken stones may be thrown in with less care, extending up to a hight of eighteen inches; the little slivers from the broken stone and such like, we scatter alone on the top to fill up the cavities; then place inverted turf on snugly, and press it down with our feet. The dirt dug from the ditch is then filled in, and it is finished.

The whole cost is about sixty cents per rod, including drawing the stone, which pays by getting them out of the way. I am well convinced that these drains will continue to act well, and I cannot see why stone is not quite as good, if not better than tile, and it costs something less here. LUCIUS GRISWOLD. *Litchfield Co., Ct.*

Fresh Water Shell Marl.

MESSRS. EDITORS—My experience in the use of "fresh water shell marl," has been similar to that of your correspondent "A. B., Woodstock, Vt.," who asks for information in your last number. I unite with him in requesting information from others, who may have succeeded in its use.

Repeated experiments with it for many years past, have convinced me that it is more imperfectly understood than almost any other species of manure.

I have used it however with decided advantage in raising potatoes, by applying it in the hill when in a *perfectly* powdered state, (and after it had been exposed for some months,) and also as a *top* dressing upon *low* meadows. To all other kinds of crops, and more especially corn, I have found it a decided disadvantage.

"Composting it with stable manure," or "mixing it in the barn-yard," is, in my opinion, labor lost—indeed in my case I thought it a detriment. As a top dressing it will bring in white clover, and if used on potatoes when *perfectly* powdered, it will give a pretty good result. W. F. *New-York, Dec.* 29, 1857.

Unprofitable Farming.

"Why is it that there is so much *unprofitable farming*, when it has been shown, again and again, that money can be made in the culture of the soil? Where lies the failure?"

"*In the neglect of known rules and precautions* in nine cases out of ten," we answer. For the one failure from the want of *knowing how*, we can point you to scores where the farmer did not "live up to his light," but concluded to "take the chances," when his reason told him they were largely against him. A list of the practices common among farmers, though generally acknowledged to be unprofitable, would surprise the majority of our readers. Let us instance a few, and it can be but a few, of them.

Depth of soil is acknowledged to be necessary to large productiveness. A large hill of corn, a thrifty growth of wheat, barley, or grass, must have roots and rootlets equally large and thrifty—and such only grow in a deep mellow soil. With plenty of room and food for the roots, the whole plant will correspond; with a shallow *four or six inch soil*, the roots are only adequate to a small growth above ground—they can neither find nor carry up the nourishment required to a large product. A shallow soil also soon becomes sterile under the influence of drought, especially if the subsoil is of a retentive character.

Clean Culture is an acknowledged necessity in profitable farming. All allow it to be a matter of much importance to a growing plant, whether it has a whole field to itself, or whether weeds surround it, stealing away the greater share of the nourishment supplied by the soil. It is acknowledged poor policy to manure and plant a field and then have useless weeds to use up that manure, and starve out the planted crop. And yet how often is it done. It would not be too much to say that *weeds*, of one kind and another, *exhaust one-third of the productive energies* of nine-tenths of the cultivated acres of the country. This alone accounts for so much *un*-profitable farming.

Unseasonable seeding is known to generally result in loss to the farmer; and yet nothing is more common than to plant and sow, when only a very remarkable season can produce a favorable result. Corn is planted, when we know that frost must come before it is nearly matured; spring grains are sown when in the usual course of nature the summer drought will injure them to a large extent; wheat is gotten in too late to withstand the winter, and just in time for the midge—the farmer "taking a risk" no insurance company would venture upon without the highest premium.

Adaptation of the crop to the soil is important to profitable production. It is well known that some crops seldom succeed on a clay soil, while others fail on those of a sandy character. Wheat, for instance, delights in a well-drained clay, while rye likes best the sandy loam. These "likes and dislikes" should be studied—the affinity of soil and product carefully attended to—then we should escape another frequent cause of loss to the farmer.

Other sources of loss to the farmer—of losses known and acknowledged by all—we shall perhaps refer to in a future number of this journal.

☞ At the late Agricultural Fair at Stockton, California, a $50 dress was awarded to the unmarried lady who made the best bread.

Horn Piths.

Messrs. Eds.—In the Co. Gent. of 7th inst., J. Swinburne inquires the relative value of horn piths, compared with other bones, as a manure. Crushed in a bone mill, pound for pound, they would be of about the same value—beside, from their more porous nature, they would in the soil more readily decompose. Within the past twenty years, I have used many cart-loads of horn piths, procured at the tanneries. Some two years ago I paid $5 for three cart-loads, which were sawed and broken as finely as could conveniently be done, and applied to an acre of land sown with wheat last spring. I would not give a man a fig to warrant me twenty tons of hay from that acre the coming ten years; and the cattle that eat the hay will not be troubled with the bone disease during the time. For the two past seasons, when planting potatoes, I have dropped a horn pith into each hill of a portion of my crop; when the potatoes are dug, the piths are completely enveloped with a coating of fibrous roots. After digging the potatoes, I collect the piths, storing them away for next year's use, they being better than new for the purpose, and probably they will last a dozen years or so.

In May, 1856, plowed half an acre of green-sward land and planted with potatoes, using different manures in the hills. Two rows had about half a spoonfull of Peruvian guano to each hill; then a row without manure; then two rows superphosphate of lime; next row, no manure; two next, Mexican guano; then two rows with one horn pith in each hill; two rows with a handful of damaged salted tongues and sounds—others with plaster, ashes, &c.

The rows having the horn piths had much the largest and most luxuriant tops; the difference could be plainly seen at the distance of half a mile, in the month of August. But the rust took the tops when the tubers had obtained about half their usual growth, consequently had a light crop. At digging time, I ascertained by "weight and measure," (no guessing about the matter,) the relative product of the rows receiving the different manures.

Where horn piths were used, it took forty hills for a bushel—where the guano and superphosphate were used, there was a trifling variation—varying from sixty to seventy hills per bushel—where no manure was used it took over ninety hills per bushel. The ashes and plaster had but little effect—a result very different from what I have had on other kinds of soils, in their use for the potato crop. About the time the potatoes were making their appearance at the surface of the ground, the dogs from a large circuit congregated in my potato patch, under cover of night, and dug every hill, so that I am completely in the dark as to the manurial value of salted "tongues and sounds" for the potato crop.

In conclusion, I will just say to Mr. Swinburne, collect all the horn piths and other bones within your reach. But if you undertake to break them up with hammers, it will be well for you to get an insurance on your eyes L. B. *Warner, N. H.*

The American Veterinary Journal.—The third vol. of this valuable work commences with the January number. G. H. Dadd, V. S., Boston, editor and publisher—monthly at $1 a year.

The United States Agricultural Society.

The Sixth Annual Meeting was held in pursuance of appointment at Washington, 13th January, Mr. WILDER, the President, taking the chair, and about 70 members being in attendance, representing 19 States. The opening address by President W. was appropriate—congratulatory to the Society, and referring in terms of commendation to the increased disposition on the part of the general government to pay attention to the claims and interests of Farmers—mentioning the satisfactory results of the Syracuse Trial and the Louisville Show—alluding to the loss sustained by the death of two of the Society's Vice Presidents, Messrs. G. W. P. Custis of Va., and T. J. Rusk of Texas—declining, for himself, a third time, re-election as President, having six years discharged the duties of the office at much personal sacrifice—and, in conclusion, briefly reviewing the good influences exerted by the association, and the benefits to be derived by the country from perfected systems of husbandry,

"Till plenty, rising from the encouraged plow,
Shall fill, enrich, adorn our happy land."

Mr. B. O. TAYLOE, of the Dist. of Columbia, responded,—expressing his regret at the proposed withdrawal of Mr. Wilder from the presidency, and complimenting the energy, fidelity, and dignity with which he had adorned the position, and, after some further remarks,

Committees on Nominations and the Treasurer's accounts, were appointed as usual. The subject of Mr. Morrill's Bill, donating lands to Ag. Institutions, was referred to a committee of five, and it was voted that the committee on obtaining from Congress an act of organization for the Society, should renew their application for this purpose. In answer to a call from the chair,

Mr. H. F. FRENCH of New-Hampshire, made some remarks on the recent visit made by him to Europe, in which he acted as a delegate of the Society to several Agricultural Exhibitions. He discussed especially the subject of plowing by steam, replying to various interrogatories from different members.

The CHAIR announced the committee on the subject of Mr. Morrill's bill to be Messrs. Johnson of New-York, Tilghman of Maryland, Loring of Massachusetts, Tayloe of the Dist. of Columbia, and Arney of Kansas.

Dr. ANTISEL was then introduced, and proceeded to address the Society on "the necessity of having a more perfect knowledge of the mineral necessities of our crops developed," and concluding with the recommendation of an appropriation for suitable experiments. Mr. CALVERT of Maryland, spoke warmly in approval of Dr. Antisel's paper, and offered a resolution which was passed, appointing a committee to memorialize Congress for a specific appropriation to carry out the investigations proposed.

The CHAIR announced the awards to the reapers and mowers at Syracuse, as follows:

MOWERS.

First premium—Gold Medal and Diploma—To Ball, Aultman & Co., of Canton, Ohio—Miller & Aultman's patent.

Second premium—Silver Medal—To Walter A. Wood, of Hoosick Falls, N. Y.—Manny's patent with Wood's improvement.

Third premium—Bronze Medal—To Martin Hallenbeck, of Albany, N. Y.

Diplomas awarded as follows:—

To T. D. Burrall, of Geneva, N. Y., for simplicity of construction and solidity of workmanship.

To R. L. Allen, of New-York, for concave knife-blade, and general excellence of material and superior workmanship.

To Buffalo Agricultural Machine Works, Buffalo, N. Y., for cheapness and ingenious adaptation of cutter to uneven surfaces.

REAPERS.

First premium—Gold Medal and Diploma—To C. H. McCormick, of Chicago, Ill.

Second premium—Silver Medal—To Walter A. Wood, of Hoosick Falls, N. Y—Manny's patent with Wood's improvement.

Third premium—Bronze Medal—To Warder, Brokaw & Child, of Springfield, Ohio.

Diploma to Jonathan Haines, of Pekin, Ill., for Illinois Harvester.

COMBINED MACHINES

First premium—Gold Medal and Diploma—To Walter A. Wood, of Hoosick Falls, N. Y.—Manny's patent with Wood's improvement.

Second premium—Silver Medal—To Buffalo Agricultural Works, Buffalo, N. Y.—Kirby's improvement.

Third premium—Bronze Medal—To Warder, Brokaw & Child, of Springfield, Ohio.

TRANSFERABLE AUTOMATON RAKES.

First premium—Bronze Medal—To Seymour & Morgan, of Brockport, N. Y.

STATIONARY HAY OR COTTON PRESS.

First premium—Silver Medal and Diploma—To William Deering & Co., of Albany, N. Y.

PORTABLE HAY OR COTTON PRESS.

First premium—Silver Medal and Diploma—To William Deering & Co.

GRAIN CRADLES.

First premium—Bronze Medal—To H. Robinson.

SCYTHE SNATHS.

First premium—Bronze Medal—To Frost, Burke & Co.

The second day a communication was received from JOSHUA VANSANT, President of the Maryland Institute, inviting the Society to hold its next show at Baltimore. A favorable report was presented by D. JAY BROWNE, from a committee appointed last year to investigate the merits of the Chinese Sugar Cane, and a long debate on the subject took place. A medal was awarded to JOSEPH S. LOVERING of Philadelphia, for experiments and samples of sugar made by him. Resolutions in favor of Mr. Morrill's land bill were reported and adopted. The following list of officers, was then brought in by the Nominating Committee and unanimously elected:

President—Gen. TENCH TILGHMAN, of Maryland.

Vice Presidents—J. D. Lang, Maine; H. F. French, New-Hampshire; Frederick Holbrook, Vt; John Brooks, Massachusetts; B. B. Thurston, Rhode Island; S. H. Huntington, Connecticut; B. P. Johnson, New-York; W. P. Robeson, New-Jersey; David Landreth, Pennsylvania; John Jones, Delaware; Odin Bowie, Maryland; Philip St. George Cocke, Virginia; H. K. Burgwyn, North Carolina; F. W. Alston, South Carolina; Richard Peters, Georgia; C. C. Clay, jr., Alabama; M. W. Philips, Mississippi; J. B. De Bow, Louisiana; Lucien Buttles, Ohio; W. L. Underwood, Kentucky; T. Fanning, Tennessee; D. P. Hollaway, Indiana; H. C. Johns, Illinois; T. R. Barnett, Missouri; A. B. Greenwood, Arkansas; Michael Shoemaker, Michigan; D. L. Yulee, Florida; Guy M. Bryan, Texas; Le Grand Byington, Iowa; B. F. Edgerton, Wisconson; A. C. Bradford, California; H. M. Rice, Minnesota; J. H. Lane, Oregon; W. W. Corcoran, District of Columbia; M. A. Otero, New-Mexico; D. Anderson, Washington Territory; J. M. Bernhisel, Utah; B. B. Chapman, Nebraska; W. F. M. Arny, Kansas.

Executive Committee—Henry Wager, New-York; J. McGowan, Pennsylvania; Josiah Ware, Virginia; Frederick Smyth, New-Hampshire; Henry Wilson, Ohio; John Merryman, Maryland; James W. Brown, Illinois.

Treasurer—B. B. French, Washington, D. C.

Secretary—Ben. Perley Poore, Newburyport, Mass.

Since the foregoing was in type, we have received the following letter from a correspondent, which, although in some respects a repetition of the above, will still be read with much interest. It is dated Washington, Jan. 15:

EDITORS COUNTRY GENTLEMAN—The United States Ag. Society assembled at the Smithsonian Institution on the 13th, and the President, Col. WILDER, opened the meeting with an address, briefly alluding to the operations of the Society, and after paying a deserved tribute to G. W. P. CUSTIS and Senator RUSK, who had deceased during the year, announced his intention to retire from the Presidency of the Society. The report from the Treasurer exhibited a balance of $1,500 after reserving enough to pay premiums due. Mr. FRENCH of N. H., gave a very interesting and satisfactery account of steam plowing, as observed by him abroad, and an interesting discussion arose in which several gentlemen participated—among them Col. B. P. JOHNSON, N. Y., Mr. BYINGTON, Iowa, Mr. WASHBURN, Ill., Mr. JONES, Del., Lt. Gov. BROWN, Boston. Mr. Johnson informed the members of the determination of Gov. KING, N. Y., to retire from the Executive Board, and President Wilder very appropriately alluded to the truly valuable services of Gov. King to the Society from its commencement.

Mr. Johnson, N. Y., Gen. Tilghman, Md., Dr. Loring, Mass., Judge Arny of Kansas, and Mr. Tayloe, Washington, were appointed a committee on Mr. Morrill's Land Bill for Ag. Schools, who reported resolutions in favor of the same, which were adopted.

Dr. ANTISEL, who aided the lamented DELAFIELD in the survey of Seneca county, read a paper on the necessity of having a more perfect knowledge of the mineral necessities of crops developed. The Doctor said, after a thorough chemical examination for years, of soils, he had come to the conclusion that analyses of soils give no valuable results, either practical or scientific. So we are all afloat, and the Doctor must be called upon to set us agoing again.

A discussion in relation to the sugar cane arose, and much difference of opinion was exhibited. It struck me that we had arrived at the same position we occupied some years since on the potato disease, when every man had a *specific* for the disease, while all raised nothing but *diseased* potatoes. Those who have seed to sell, sugar mills to dispose of, books to explain the theories and practices of culture of the plant and the preparation of the syrup and sugar, doubtless *actually* believe it is the greatest boon ever given to America—*even* more important than the Dioscorea—while the men present who had *tried* the culture seemed to me to *expect* something hereafter, few being prepared to say that as a general crop this could as yet be recommended as a substitute for any of our reliable crops.

A committee appointed by the President, reported a list of officers. Gen. TENCH TILGHMAN of Maryland, as President. Gen. T. is well known in our State as well as at the South, and his position as a real practical farmer, his intelligence, his standing, all pointed to him as a suitable man to preside over the deliberations of the Society—and very many of the real tried friends of the Society rejoiced at the announcement of his name. Mr. POORE, as Secretary, whose industry and strict business habits during the last year had commended him to the Society, was renominated. Mr. WAGER of N. Y, was placed in the position occupied by Gov. King, Chairman of the Executive Committee, and will worthily fill that vacancy. The residue of the Executive Committee are *working men*, and will, I doubt not, make every effort to place the Society in a position to extend its usefulness. The list of officers as reported, was accepted and the persons named elected.

Immediately after the election, the Executive Committee met, and resolved to *open rooms* at Washington where the Secretary is to be in attendance from *Nov.* to *July*, the season when Congress is in session, and gentlemen present from all parts of the country, and during the interval to have an assistant at Washington to attend to any matters necessary.

The commencement of a library was decided upon, and meetings of the Executive Committee quarterly, appointed, and a monthly bulletin to be published, advising the officers, life members, and correspondents of the Society, of what is being done.

I consider these measures of the utmost importance. They give the Society a place of business at the Capital of the nation, where an opportunity exists of securing the co-operation of the leading agriculturists in every portion of our country and the world, and I shall be much disappointed if the action of the Committee does not advance the interests of the Society.

The subject of holding a Fair was referred to the Executive Committee, who will, if suitable places should be offered, take action in relation to the matter.

A testimonial was voted to President Wilder, in acknowledgment of his valued services to the Society since the time of its organization.

The subject of *Imphee* and *Sorghum* elicited a warm discussion between Mr. WRAY, in favor of the former, and Mr. BROWNE of the Patent Office. The debate seemed to indicate some *heart-burnings* somewhere, but valuable suggestions were elicited, as well as some *facts* which were very *much wanted*. Prof. JACKSON of Boston, gave some valuable information in relation to his investigations on this subject, which will appear at large in the Patent Office Report. I understood that after he had made these valuable statements before the Society, it was suggested by some one that they *could not be published*, as they belonged elsewhere. My impression is that the Society *did* not recognize the right of anybody to say, after a discussion and elucidation of valuable facts before the Society, they are to be tabooed *until* some one can make something out of the matter. I presume, therefore, you will see the material and very valuable facts obtained by Prof. Jackson, as to sorghum for *syrup*, *sugar*, &c.

A paper on the "Hog Cholera," by Prof. HIGGINS of Maryland, was read, and said to be valuable.

The new President, who entered upon the duties of his office at the close of the meeting on Thursday, performed them to the acceptance of the Society, and at the close on Friday P. M., in a brief but eloquent address, after announcing that the Executive Committee had made preparations for the establishment of permanent rooms for the Society at Washington, urged upon the members of the Society present, to exert their personal influence to increase its members, extend its influence, and make it worthy the position it occupies among the agricultural institutions of our country.

My impression, from all I have seen here, is, that the Society is now upon a *working platform*, and with economy, energy and perseverance, will make itself known at Washington and abroad, as *one* of the Institutions of our country.

The bark Grayhead, from Constantinople, at Boston, has on board ten goats and three sheep, of the Angola breed, consigned to the U. S. Government.

Wintering Calves.

"Fines calves, those! How do you manage to keep them in such good order."

"Easily enough; I give them shelter, and feed and water them regularly."

"You *take care* of them, I see; many farmers let calves take their chance with the other stock through the winter."

"That's a very poor chance, to my notion; for one who would winter calves so, would not take much pains for the comfort of any of his cattle."

Last winter, (let us tell the story,) farmer B. wintered his four calves in a stable partitioned off in one corner of his cow shed, or rather one of the cow sheds, for he has several on different sides of his barn-yard. It was about 15 feet square, and had a manger or box for hay, &c., on one side, eighteen inches wide and a foot deep, with stakes about about every two feet, long enough to keep the calves' heads separate. The floor was of earth, or rather of litter and manure, for in the course of the winter it accumulated a foot or more in depth over the surface. It was leveled and kept clean and dry, by daily supplies of refuse straw—a small quantity of this sufficed each day, except in thawing weather.

Their food was cut straw and chaff, and good clover hay—the latter night and morning—the former at noon—or perhaps twice in the middle of the day—and they were not allowed to waste much of either. Calves and other stock will waste more than they eat, unless some judgment is used in supplying their food at *proper times* and in a *proper manner*. We should put before them all they will consume, and place it where they cannot get it under their feet, removing the refused portions from their mangers before giving a fresh supply.

Water was furnished once a day in very cold days; twice on warmer ones. Farmer B.'s water pond is near, but *outside* his barn-yard, and he says cattle will not drink more than once in the bleakest days of winter, even if they must go but a few rods from the yard. It would be better to have water in the yard and at all times ready for the stock; but this convenience is beyond the reach of many farmers.

It is remarkable how little thought is often given to *shelter* for animals. These calves, in the fall, had smooth, glossy coats, and were full of life and animation, but as winter weather came on they began to show its effects in a roughness of coat, and drooping of spirits. The change was very noticeable in the few weeks before their shelter was fitted up for them. They had as much and as good food, and ate more of it, but the cold and wet made a very material difference in their thrift and appearance. Depend upon it, attention to *the comfort of animals*, is the best economy. After a week's stay in the stable, their coats were as glossy as ever, and they were ready to run and play when driven to water, and were often allowed an hour or two in an open yard for exercise.

Calves like grain and roots, apples, pumpkins and the like, yet they can be wintered without them. No doubt it is the best policy to so feed as to *keep them growing*, and it may be cheaper to feed some grain than to depend entirely on hay for this purpose In mild weather roots are valuable, and no farmer should fail to provide them—especially for partial feeding in spring, preparatory to turning out to pasture.

The Resources of the Farm.

Having this winter an unusual demand for litter suitable for bedding in my stables, yards and pens, I was at first somewhat at a loss how to provide a substitute for straw, of which the quantity in store was limited. I took a stroll through some of the wooded parts of my farm, and found that there could be quite a large quantity of leaves gathered in the valleys among the hills. I had often resorted to the same expedient before in a small way. So my teams were set to work carting them home dry, and storing them for use. We have now collected from sixty to seventy loads, as large and solid as could be got into a farm wagon with double sides, and think there can be collected two hundred loads from the woodlands of the farm, which occupy about twenty-five acres of the hilly part. That these leaves are quite valuable in the compost heap, I have proved by former experiments, and the present exigency has shown me that the resources of the farm are often overlooked or not duly appreciated. Most farms are provided with a proportion of woodland that would furnish a large quantity of leaves, and yet very few of the farmers in this vicinity cart them. What the relative value of these leaves is, I have never been able accurately to determine. Perhaps the Editors of the Country Gentleman or some of its numerous correspondents, can shed some light on the subject, and confer a favor on those who are not informed in this matter. RICH'D M. CONKLIN.
Cold Spring Harbor, N. Y.

Salt a Universal Remedy

MESSRS. EDITORS—I had just finished reading Prof. Johnson's remarks on Mr. Cleveland's theory of salt as a "*universal expounder*" and a "*universal remedy*," when over went my inkstand upon a beautiful light drab table cover, to my great consternation, as my wife had often cautioned me against this very thing. I rushed for the *salt* cellar, and emptied its contents over the black mass of ink, and in five minutes the stain had wholly disappeared! I doubted Mr. Cleveland's theory before, but ought I to doubt it any longer?

There is one point, however, in which my experience differs from Mr. Cleveland's theory—I emptied the salt *over* and *upon* the ink, and it *descended* into the cloth and effected the desired object.

One thing is certain, whether salt be a universal remedy or not, viz: *it will surely, if applied immediately, prevent ink stains.* A SUBSCRIBER.

Recipe for Squash Cake.

1 quart boiled mashed squash. 1 coffee-cup sweet, sour, or buttermilk. 1 coffee-cup flour. 3 eggs—salt and saleratus, if sour or buttermilk is used. Fry in butter or lard. If the mixture is poured over sliced apples in the spider, it is an addition.

This is something my mother "invented," and we think it is better than the squash alone. E. T. M.

THE GRAPE GROWERS of the West are about to receive large accessions to their numbers from Europe. A vessel arrived at Philadelphia a few days since from Genoa, bringing one hundred and twenty-five passengers, who all come to this country with the intention of proceeding West and engaging in the culture of the grape, with a view to the production of wine.

Report on the Cultivation of Various Plants.

MESSRS. EDITORS—By interchange and otherwise, I have procured from various sources many rare domestic and foreign seeds, and have cultivated the past season some 180 different varieties of vegetables and plants. I have taken much pleasure in their cultivation; and deeming it a duty I owe to those interested in the culture of choice vegetables and plants, I propose to give a brief report of my experiments, and cultivation of the same, hoping thereby to impart some information for their benefit, and solicit their favor to give reports of their experiments, also, through the COUNTRY GENTLEMAN and the THE CULTIVATOR. As it would extend my report to too great a length, I will briefly notice a few of the many varieties I have grown, only those I deem most worthy of cultivation

Gya Wheat—from the south of Spain. This proves a winter wheat, and from its hardy and productive nature, and early maturity, may prove a valuable variety—not injured by the midge in this, our first experiment.

Grand Epautre blanch barbue, or large white awned *Spelt*; a winter grain, grown in the east of France and Germany. The berry resembles wheat, is inclosed in a hull or husk so firmly, it proves a barrier against the weevil or midge, and proves valuable on that account; excellent for pastry flour.

Of *Spring Wheat*.—A variety from Gaspe, a remote part of Canada; this proves an excellent sort. *Blue Beard*.—This is of western origin; chaff and beards delicately tinged with a bluish color; worthy of cultivation.

Seigle de Rome, or Roman Rye.—This is a choice and extra variety.

Of *Oats*, from the ten varieties I have grown, I have selected the true white *Poland* as the best variety.

Nepaul Barley, (beardless,) has a very peculiar head; as soon as it makes its appearance it is thickly set with a beautiful white blossom, and retains this apparent bloom until the grain matures—very productive.

German Millet, (Panicum germanicum,) very prolific, quick in growth, and worthy of cultivation.

California Flax—In length of fibre and a profuse seeder, is preferable to any variety I have yet grown—blossoms white—seed a light green color.

Of corn for the field I have selected the *Shoe Peg*, *Andrew's Premium*, *Adam's* 14-*inch*, *and King Philip*; each variety is very early and productive. For the garden, for early use, the *Forty Days' Maize*, a dwarf variety from the south of Spain. I think it a valuable sort on account of its quick growth and early maturity, and sweet flavor in the green state; ears delicately small—just the sort for table use. *Lathrop's Extra Early Purple*—this is also a valuable sort, very sweet and nutritious, and but a few days later than the Forty Days. For late use, the *Ohio Sugar*; this is a choice variety, large, twelve-rowed; the stalk is of a deep red color. *Stowell's Evergreen* is the *latest* sort, and in our estimation a valuable variety.

Of peas, from 24 varieties which I have grown, I have selected for early use the *Early Emperor*, *May*, *Early Washington* and *Prolific Dwarf*; for late use, *Champion of England*, *Far-famed Sir Moot*, (extra,) *Auvergne*,—from England, a very hardy, productive sort and of excellent quality,—and *Austrian Stock Pea* (very prolific); I also have three new varieties of the *Japan pea*; seed received last spring from Hon. J. B. GARDER of Columbia, Pa.; of which Mr. G. says: "These peas, I am satisfied, have not yet been cultivated in the Atlantic States, except by myself—received last spring (1856,) from California, just from China." In color the varieties are red, green and yellow. The green and yellow grow in the same form as the old variety, except they are more dwarf and earlier, ours being ripe by the 27th of September. The red sort grows some different; more slender and longer pods, each pod containing from eight to ten peas of a beautiful red color—are of a smaller size than the former, all upright and very prolific. The *Australian pea*, the seed of which I received from a friend in Texas, is a very peculiar pea. The vines grow some four feet high, and from the main stock or vine extend numerous lateral branches. I planted a single row through my garden, and when fully grown it had the appearance of a well formed hedge, with its long pods protruding on each side. Length of stem and pod, 20 to 23 inches; length of pod, 6 to 7 inches; each stem contains from one to four pods, each containing from a ten to fifteen peas of medium size, white, with a circle of black around the eye. Good in quality green or dry. One peculiarity of this pea is, you will have green and ripe peas in succession from July until the frost kills the vines in the fall; as you will find mature and green peas and blossoms on the same vines through the season. The *Maritime pea* from the Gulf of St. Lawrence (a perennial.)

Of beans—my selections from 20 varieties are, for dwarfs, the *Mexican Frijoles* or *Turtle Soup*—two sorts, black and reddish; very prolific. *Early Canada Kidney*, *German Prolific*—two sorts, black and yellow; of pole or running beans, *Hungarian Tick* or *Golden Pod*; *Haricot de Soissons*, from France; *Asparagus* or *Yard Pod* (pods attain the length of two to three feet—good for pickling); *Early Lima*; *Winter bean*—this is a prolific; from seven beans planted last spring, I have shelled some over a quart, and reserved a quantity in the pod for future use. The *modus operandi* of preserving and cooking these beans is as follows: Leave them on the vines until mature and dry, then put away; and when wanted for use, scald in the evening, string the following morning, and boil somewhat longer than usual for dinner; they are said to be most delicious; we have not tested them yet.

Of cabbage, *Early York*,—*Late Drumhead Savoy*,—and *Red Dutch*, an esteemed sort for pickling, for *cold selaugh* and for *sour krout*.

Of Kohl Rabi I have four sorts—two of which the bulb grows *below ground* and two *above ground*. The *Char navet de Laporie a collet vogue*, from Vilmorin's garden, Paris, is the most esteemed sort, below ground—a purple variety; the other is green-stemmed, from Canada. The Kohl Rabi above ground, rises in a thick stem about four inches out of the ground, terminating at the top into a globular form, crowned with leaves slightly scollopped on their edges, undulated and of a milk green color. There are several varieties of it; ours is the "green-stemmed," and the "purple-stemmed." This rare vegetable is sweeter, more nutritious, and more solid than the turnip; produces a greater weight per acre; it also is hardier, and keeps better than any other bulb. I have grown specimens the past season, weighing 14¼ lbs. Sow the seed at the same

period, and cultivate the same as for cabbage, only leave the chief part of the stems uncovered by the earth.

Of cucumbers—*Negley's Seedling* is the best sort for the table; light green, tender and good-flavored; the fruit turns white at maturity, and retains its fresh appearance much longer than any of the yellow varieties. *California Long Green*—a very excellent sort, growing to a foot or more in length, dark green, very productive. *Early Frame*—the standard sort for pickling and early use. *Gherkin Cucumber* from France; produces small green fruit, much prized for pickling.

Of pumpkins—the *Honolulu*, the seed of which was recently obtained from Honolulu, one of the Sandwich Islands, by a missionary. This pumpkin is of excellent quality, medium size, rich orange-colored flesh, mottled grey, and beautifully netted rind. *Citronille de Touraine*, from France; excellent quality, large size, mottled dark green rind—a long keeper. *Mammoth Cheese*—large and fine. *Golden Cheese*—medium size, good.

Of winter squash—*Hanford's Cream*, *Sweet Potato*, *Boston Marrow*, *Golden Imperial*, *Adam's Favorite*, (will be a *favorite* to all who chance to cultivate it,) and the *Custard* and *Golden Mammoth*. Of summer squash—*Golden Scollop*, from Alabama, and *Crook Neck*.

Of watermelons—the *Orange*, *Honeydew*, *White Spanish*, *Ice Cream or White Sugar melon* of Alabama, *Syrian* (extra fine,) *South Sea*, *Neill's Extra*, and *Apple Seeded*.

Of *Cantelopes* or *Muskmelons*—the *Arica*, from Japan, *Extra Green Nutmeg*, *Cantaloup Prescott* from France; (its color varies from a green to a silvery tint, having ribs more or less rough,) extra fine; *Suvrin de Tours*, (French,) white rind and white flesh, (deliciously sweet); *Christiana*; *Suvrin a Chair blanche*, (French,) a superior melon, large and very delicious. *Snake Melon*—(erroneously called Five Foot Cucumber,) a species of the Muskmelon; it frequently attains the length of three to five feet; as good as a second rate Muskmelon—also a curiosity.

The *Vegetable Egg*—I received last spring from Dr. SANBOURN of Andover, Mass., seeds of this rare vegetable. The fruit grows on a *vine*, and will cover trees and trellises, from ten to twenty or more feet high. The fruit, in color, is pure white, resembling an egg to an iota, and is the size of a hen's egg to that of a goose egg. It has been ascertained that when boiled, these eggs are most delicious to the taste; but on account of their great beauty, and wishing to reserve them all for seed, we did not test their eatable qualities; but as an ornament, they are worthy of cultivation. It is an annual vine; plant in light, rich soil, by a tree or trellis.

Chufas, or *Earth Almonds*—This produces tubers about the size of a chestnut, and somewhat resemble them in taste, though more delicious and sweet. Plant from 15th April to 1st of June, in drills two feet apart, and one foot asunder, half inch deep, one tuber in the hill; ripens in October.

Rhubarb, for pies and tarts—*Myatt's Victoria* is the most esteemed variety I cultivate, of which I have reserved a choice lot of seed.

Of *Lettuce*—*Grand Admiral*, *Victoria Cabbage*, and *California Curled*, are my selection.

Cape Gooseberry, an annual plant, cultivate the same as the Tomato; fruit about the size of the Cherry; excellent eaten raw, or they make a delicious pie; they should be found in every garden.

German Monthly Radish, an excellent sort; those fond of the Radish can have a succession through the season.

German Sweet Turnip, a long keeper, and excellent in quality

Chinese Asparagus, or *Hoo-sung*, an annual, perfectly hardy, easily cultivated; plant on good soil, 12 inches apart, in rows two feet apart; cut before it blossoms, prepare and serve same as Asparagus. Also cut the stalk in pieces half an inch in length, and cook with green peas; it gives them a delicious flavor.

Having extended my report to a greater length than I intended, I will now close, with the suggestion, that if persons are so disposed, they can receive and distribute seeds by mail, to great advantage, in small quantities, and at long distances, and by carful culture soon obtain a supply of the choicest varieties. I, for one, believe in *reciprocity;* and as seeds can be so easily exchanged by mail, I would solicit the favor of the patrons of the Co. GENT. and the CULTIVATOR, for an interchange of seeds. Any rare seeds that are worthy of cultivation, and of different varieties from ours, will be thankfully received and duly reciprocated. Any person wishing to obtain a package of one variety of the above seeds (without an exchange,) can do so, by remitting three letter stamps, or for a number of different varieties, remit letter stamps accordingly, just sufficient to pay postage, and the expense of putting up the seeds, &c. I have, with much care, selected seeds from the above varieties, and have a surplus on hand for distribution—not for speculation—only for reciprocation and accommodation. L. NORRIS. *Windsor, Ashtabula Co., Ohio.*

Is Buckwheat Bran Poisonous to Swine?

A writer in the Prairie Farmer, Mr. G. REYNOLDS of Peotone, Will Co., Ill., mentions a few facts which have come under his observation, that seem to make it probable that buckwheat bran is injurious to swine,—to such, at least, as are nursing pigs. Mr. R. states his father charged his family very particularly, never to feed buckwheat bran to sows that had pigs, as it was injurious to them, and would after a while dry up their milk. In confirmation of this opinion, Mr. R states that a neighbor of his had a very fine litter of pigs, and that after they were a few days old he commenced feeding the sow on bran. In about a week afterwards he noticed that the pigs began to grow poor and feeble. After three of them had died, Mr. R. told his neighbor that he thought the bran was the cause. The bran having been discontinued, there was observed in a few days, a good and healthy change in the pigs. No more of them died, and the remainder became thrifty and did well.

Another case of a like kind is mentioned as having come under Mr. Reynold's personal observation. About a week after feeding bran to a sow with pigs, his neighbor W. noticed that the pigs began to show signs of weakness. Three of these also died.

Two other cases of the same kind are referred to, in which the same course of feeding was followed by similar results. Have any of our readers met with any case of a similar nature?

The Country Gentleman.

☞ It is pleasant to have evidences that one's efforts are appreciated, and to receive acknowledgments of at least some measure of success in their accomplishment. To keep such manifestations as constantly in public, however, as they come before us in private, might be less agreeable, in a practical point of view, to our readers. It is seldom therefore that we publish such extracts as the following:

Baltimore, Md.—"I cannot refrain at this time, from expressing not only the great satisfaction and pleasure, but profit derived from the perusal of the Co. GENT. the past year, and to congratulate you upon the success which has attended your labors—a success which, if not of pecuniary advantage, has been at least that of improving the mental condition of a portion of the agricultural community." J. A. T.

Canton, St. Law. Co., N. Y.—I receive 15 papers per week, and take most satisfaction in reading the Country Gentleman of them all, although I am not a farmer. L. E. B. W.

Poughkeepsie, N. Y.—I feel much pleased with the Country Gentleman, and it would be only reiterating what has so frequently been said by others for me to say, that in my opinion it stands at the *head* of the Agricultural publications in this country, and while I have a farm to cultivate, I shall feel unwilling to do without it. S. M.

Greenfield, Mass.—Allow me to say that of all the Agricultural literature of this country, I regard this paper [the Co. GENT] as the most valuable, and I am somewhat of a judge. J. S. G.

Oak Woods, Grant Co., Ind.—I do not think there can be said too much in praise of your valuable publication the "Country Gentleman;" it is *certainly* a paper that should be in the hands of every farmer who cultivates the soil; but when we look around, it is indeed surprising to find how *few* there are who take any interest in Agricultural journals. J. E.

New-Jersey.—In conversation with Mr. H., at the annual meeting of our State Ag. Society, he paid the "Country Gentleman" the high compliment of saying that it was the best paper in the United States, and added that Mr. HOWATT's article on Potato Culture in the first number of this year, was worth at least five years' subscription.

The Chinese Sugar Cane at the South.

We make the following extract from a letter received a short time ago from E. WM. RUSSELL, Esq., of Walker Co., Georgia. It will be seen that South, as well as North, the prospects of the Sorgho appear good: "I purchased at the North one dollar's worth of the seed, planted in trenches or rows four feet apart, two or three seeds every two feet in the row. It was cut in September when the seed was fully ripe, and ground on a wooden mill with three rollers, such as are used in grinding the common sugar cane in the lower counties of this State. The juice was strained and boiled in a large iron kettle. Six gallons yielded one of thick syrup, quite equal to that made from our common cane, and has kept up to this time quite as well. In using the syrup one of my family remarked there was sugar in the cup, and on examining the vessel that held about ten gallons of the syrup, I found several pounds of sugar; I put it in a cloth to drain. It is dark in color, but the grains equal to good brown sugar. I used about one-half pint of lime to thirty gallons of juice."

Books for a Farmer's Library.

MESSRS. EDITORS—Our Library Association wish to purchase $30 to $40 worth of agricultural works. Will you please furnish us a list of such books as you would recommend for this purpose, with the prices, and where they can be had. We wish it to include the new series of The Cultivator, bound, and your Rural Affairs, and vols. on cattle, sheep, bees, &c. H. B.

In answer to the above, we give the following list, which will furnish an answer to several other inquiries:

The Cultivator, new series, 5 vols.,	$3.75
Rural Affairs,	1.00
Farm Implements, by J. J. Thomas,	1.00
Stephen's Farmer's Guide, 2 vols.,	5.00
Dadd's Modern Horse Doctor,	1.00
Dadd's American Cattle Doctor,	1.00
Stockhardt's Chemical Field Lectures,	1.00
Norton's Scientific and Practical Agriculture,	60
Johnston's Elements of Agricultural Chemistry and Geology,	1.00
Johnston's Lectures on Agricultural Chemistry and Geology,	1.25
Nash's Progressive Farmer,	60
Breck's Book of Flowers,	1.00
Allen's American Farm Book,	1.00
Allen's Rural Architecture,	1.25
Bement's Poulterer's Companion,	1.25
Guenon's Treatise on Milch Cows,	60
Youatt on the Breed and Management of Sheep,	75
Youatt on the Horse,	1.25
Youatt, Martin, and Stevens, on Cattle,	1.25
Youatt and Martin on the Hog,	75
Barry's Fruit Garden,	1.25
Munn's Practical Land Drainer,	50
Quinby's Mysteries of Bee-keeping,	1.00
Saxton's Rural Hand Books, 4 vols.,	5.00
Browne's Field Book of Manures,	1.25
Boussingault's Rural Economy,	1.25
Thompson's Food of Animals,	75

We can furnish the above, or any other works which may be desired.

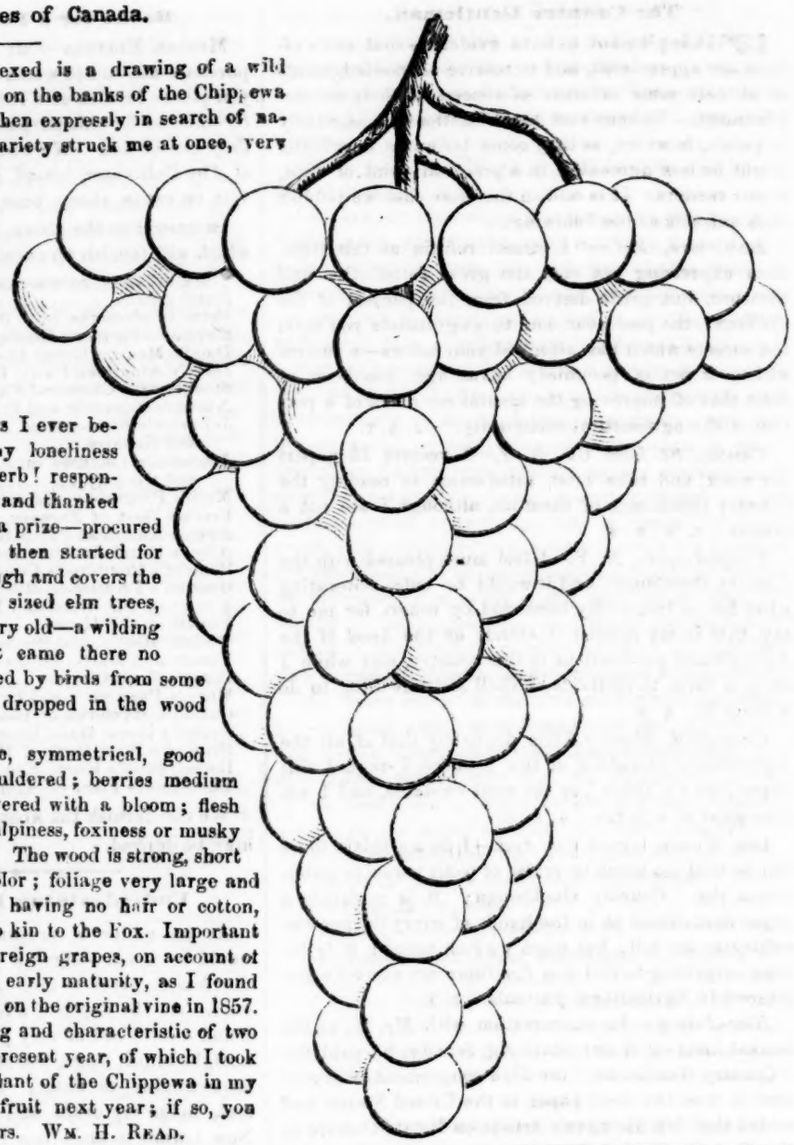
Underdraining Impervious Clay.

As an editor is presumed to know everything, I would be much obliged if you would solve a question that has occurred to me. I am draining a piece of wet land. At the depth of a foot or less below the surface, I find a solid bed of very pure clay, almost white, with a slight bluish tinge, and so far as I can see, absolutely impermeable to water. I cut through this say two feet, make my drain and fill it up in the usual way. Now I want to know how the surface water is to enter that drain? In a well made drain, to be effectual, the great body of water must enter at the bottom. Here I cannot see that it can enter at all. Will such a drain prove of service? C. W. T. *Bucks Co., Pa.*

Draining will be useful on this land, in different ways. The drains having descent the shortest way down the slope of the land, the water will flow beneath the common soil, over the surface of this impervious subsoil, (generally only a few yards,) till it finds the drain, when it will be carried off. Without draining, the water would have to flow over this subsoil-surface; the whole breadth of the field before it made its escape, and the soil would thus be loaded with water. By cutting the drains about three feet deep, and afterwards subsoiling eighteen inches, this water-tight crust would be rendered porous, the air would probaby improve its texture and quality, and the soil could be deepened and rendered dry enough. There are probably horizontal as well as other seams in this subsoil; and frequent drains would let off the water from these seams, and prevent its entering them by cutting off any broad flow from above.

Wild Grapes of Canada.

MESSRS. EDITORS—Annexed is a drawing of a wild grape, found by the writer on the banks of the Chippewa Creek, in the year 1855, when expressly in search of native hardy grapes. The variety struck me at once, very forcibly, as one of great importance. Its captivating and unusually symmetrical clusters, at first sight carried me quite away. I threw off hat and coat, and quickly ascended the vine to the height of 80 feet or more, where I could pick at least half a bushel of the most perfect grown clusters I ever beheld. I tasted, and in my loneliness cried out "superb!" Superb! responded echo. I ate heartily, and thanked Dame Nature for so great a prize—procured a bundle of cuttings and then started for home. The vine runs through and covers the entire top of two medium sized elm trees, and is, I judge, a full century old—a wilding of great beauty. How it came there no one knows—probably carried by birds from some Frenchman's garden, and dropped in the wood upward of a century since.



Bunches very handsome, symmetrical, good size, compact, heavily shouldered; berries medium size; skin thin, black, covered with a bloom; flesh tender, melting, without pulpiness, foxiness or musky flavor, sweet and excellent. The wood is strong, short jointed, of a redish iron color; foliage very large and thin, green on both sides, having no hair or cotton, and unmistakably shows no kin to the Fox. Important as a parent to cross with foreign grapes, on account of its extreme hardiness and early maturity, as I found it ripe on the 10th of Sept., on the original vine in 1857.

I will send you a drawing and characteristic of two other wildings, found the present year, of which I took a sketch at the time. A plant of the Chippewa in my garden will probably bear fruit next year; if so, you may see some of the clusters. WM. H. READ.

Cost of Raising Indian Corn.

EDS. CULT. AND CO. GENT. — Do farmers usually know the comparative cost and profit of particular crops? I am trying to find out, and should be pleased to learn through your paper how the experience of others compares with my own. I subjoin my account with a cornfield of 18 acres worked this summer, to be used as you think best. The ground and the corn have been measured—there is no guess-work about it.

Timber originally walnut, ash, sugar and beech—has been under cultivation twenty years—last year was in wheat, and the year before in corn. The soil dark—10 inches deep, with a clay bottom—was broke up eight inches deep with a span of horses:

Team and hand, 12¾ days breaking, $2.00,	$25.50
Cost of seed, laying off and planting,	13.05
34 days work, harrowing, plowing, hoeing, &c., 57½ cents,	26.90
Use of team, equal to 26¾ days single, 52 cents,	13.91
Repairing Tools,	1.00
Entire cost, board, labor and all,	$80.36

The yield is 1,350 bushels—costing before gathering not quite six cents per bushel. W. A. G. *Ripley, O.*

Rearing Calves.

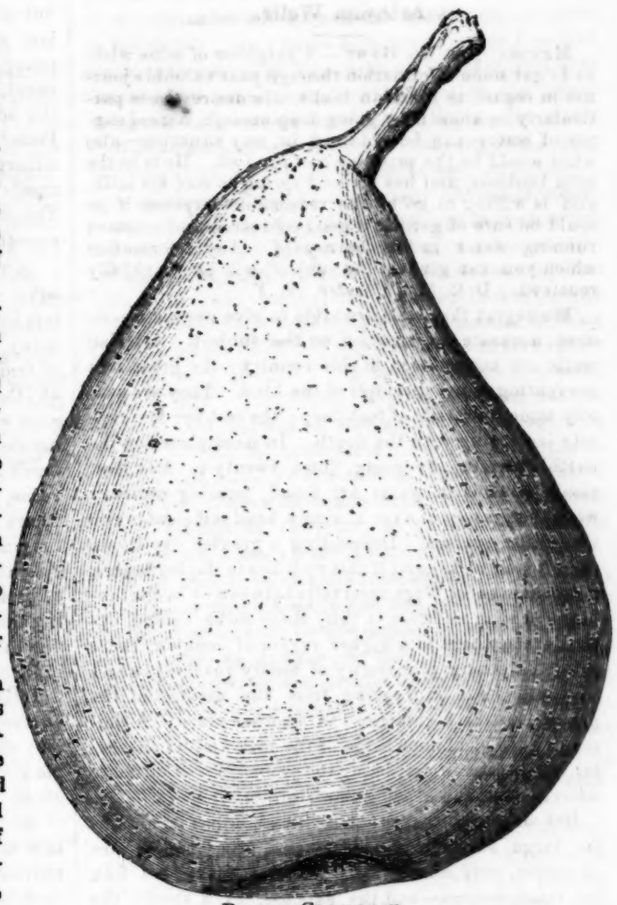
EDS. CULT. AND CO. GENT. — I have often read in Agricultural papers of the different modes of rearing calves, and the best manner to adopt so as to turn them out fine and as cheaply as possible in the spring.

I will give you the method I pursued with the two first calves which I raised. I let them suck from three to four weeks; then put them in a good pasture, and gave as much milk as they could drink, for a couple of weeks, adding a handful of meal when I diminished the quantity of milk. In the beginning of winter I fed hay, with a little meal now and then, and finished wintering (being short of hay,) on good straw; and I turned out two as fine calves of our small breed of cattle, as you could have seen. This winter I have six calves; the two youngest — one of four and the other three months old—are fine looking. Morning and evening they get clover, (the second crop,) which is tender; and at noon cut turnips and straw. Three times a week the quantities of turnips are diminished, and replaced with two handfuls of oil cake and corn, or oat meal, and in the spring I will inform you how my calves look. N. *St. M., C. E.*

The New Pears.—(Continued.)

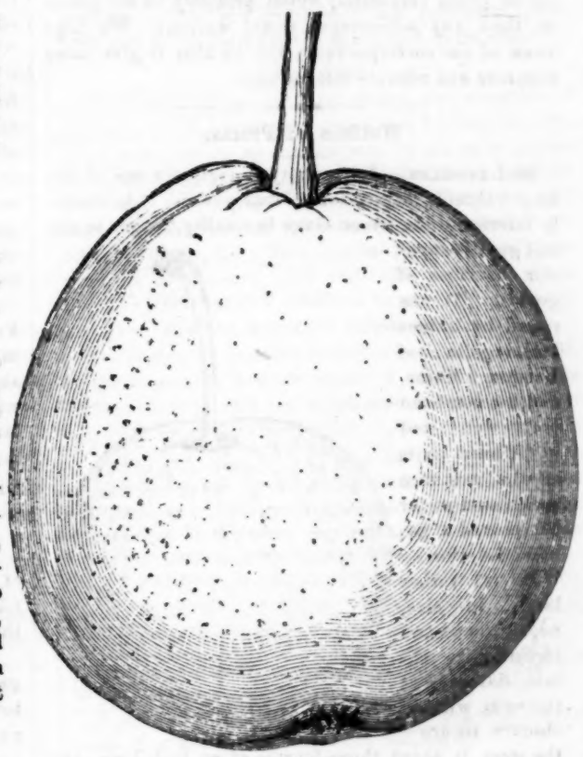
Beurre Clairgeau. — The large size, great beauty, fine quality, productiveness and *late ripening* of this new pear, and the handsome pyramid it forms on the quince, have given it great celebrity. A want of sufficient hardiness, indicated by the effects of winter, in some localities, has somewhat lessened its high reputation. This defect may, however, on further trial, prove of comparatively small importance.

It is large, obovate, pyriform, the larger specimens generally distinct pyriform; skin yellow when fully ripe, sometimes nearly clear and smooth, and at other times, and particularly with larger specimens, coarsely dotted, and nearly covered with russet, often with a handsome crimson cheek towards the sun; stalk an inch long, not sunk at insertion; calyx in a moderate basin; flesh buttery and melting, sometimes granular, with a "very good" perfumed flavor. The quality is somewhat variable—from "good" to nearly "best." On quince, the fruit is of larger size and of better quality than on pear stock.



Beurre Clairgeau.

Doyenne Sieulle.—This pear, although well known here for some ten or twelve years to several American pomologists, may properly be ranked among the newer sorts. The tree is an upright and vigorous grower, and very productive; while its good quality, and period of maturity through the latter part of autumn, and often nearly to mid-winter, render it quite valuable. It is rather large, roundish, slightly obovate; color a rich yellow when ripe, often reddened towards the sun; dots on the surface rather small and not conspicuous; stem an inch and a half long, rather deeply set in a frequently wide and somewhat ribbed cavity; basin quite small, wrinkled; flesh nearly white, fine grained, buttery, with a mild, rather aromatic flavor—"good" or "very good."



Doyenne Sieulle.

The Allen Raspberry.

L. F. Allen made a statement to us at the Rochester meeting of the Fruit Grower's Society of Western New-York, in relation to his raspberry, which he wishes us to notice.

It is not well known where it originated. He found it in a neighboring garden of choice fruits, which had been changed to other uses, and the proprietor was about throwing them out. They are not like any other raspberry known in cultivation. *They are perfectly hardy without winter protection or covering* of any kind: stands upright without any support, growing in good soil, with fair cultivation, six to seven feet high—requiring no artificial support when cut down to three or four feet high for bearing. Color of fruit, a full bright red, *bowl* shaped, of good size and high flavor. Many thousand plants have been sold, and among all the inquiries made, it has not been found identical with any other variety.

Honesty is a strong staff to lean upon.

Artesian Wells.

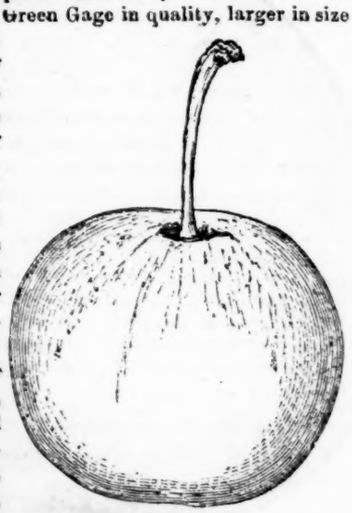
MESSRS. EDS. CO. GENT.—A neighbor of mine wishes to get some information through your valuable journal in regard to Artesian Wells. He desires more particularly to know if by going deep enough, a good supply of water can be obtained in any situation—also what would be the probable cost per foot. He is in the milk business, and has no good spring to cool his milk, and is willing to go to any reasonable expense if he could be sure of getting a good cold stream of constant running water in his barn-yard. Any information which you can give on the subject, will be thankfully received. D. C. M. *Chester, N. Y.*

We regret that we are unable to give our correspondent accurate information on the subject. Artesian wells are not common in this country—the great cost preventing many attempts of the kind. They are usually some hundreds of feet deep—the cost per foot rapidly increasing with the depth. In most places on the earth's surface, by going down twenty to fifty feet, small streams of water are found, forming ordinary wells, but rarely or ever having a *head* sufficient to rise above the surface. Descending a greater depth, we often reach rock—and if this rock lies in sloping layers, with chances for large reservoirs between or in the layers, and if in addition to this, these rocks extend upwards elsewhere to a higher region of country, there will be a strong probability of finally reaching water that will issue in a spring from the surface of the ground, by the higher head in another place. A thorough geological knowledge of the rock and its character, may assist in predicting the probability of ultimate success—the depth being uncertain in all cases.

But where the rock is not stratified, or has no chasms for large subterranean reservoirs, the chances are of course, very small. At Chester we should not look for much success—and the expense, even should the result prove successful, would probably be far greater than any advantages would warrant. We hope some of our correspondents will be able to give more accurate and reliable information.

Notices of Plums.

MCLAUGHLIN.—This variety is certainly one of the most valuable acquisitions of late years. It is scarcely inferior to the Green Gage in quality, larger in size and greatly superior in vigor of growth. It was raised by James McLaughlin of Bangor, Maine, and has now been pretty well tested in different parts of the northern states, and so far has proved a general favorite.



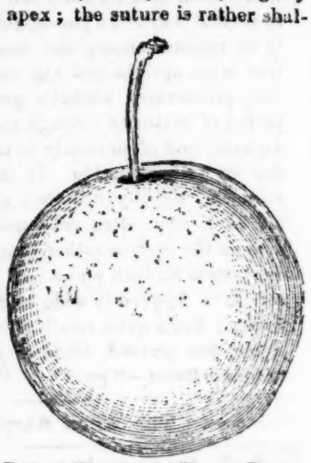
MCLAUGHLIN.

It is rather large in size, nearly round and inclining to oblate, flattened at the ends, with an obscure suture—the stem is about three-fourths of an inch long, and but slightly sunk at its insertion—the skin is thin, yellow, sprinkled with thin red with some russet on the sunny side—the flesh is dull yellow, rather firm, juicy, sweet, and generally of "best" quality, according to the scale of the American Pomological Society. It adheres to the stone. It ripens at the end of autumn. The shoots of the tree are smooth.

SCHENECTADY CATHARINE.

SCHENECTADY CATHARINE.—The late severe winters have so greatly injured many of our finer varieties of fruit, more particularly at the west, that those sorts which have proved the hardiest are now placed much higher on the list for value, than formerly, even where in other respects, they may be of a less attractive or popular character. Among the plums, the Schenectady Catharine is likely to prove especially valuable for its power of withstanding the severest weather—at the same time that its fine quality, vigorous growth, and productiveness more than compensate for its small size.

It is below medium in size, nearly round, slightly narrowed towards the apex; the suture is rather shallow; skin deep purple; the stem is about three-fourths of an inch long, set in a rather deep and narrow cavity; the flesh is greenish yellow, melting, sweet, rich, and excellent—"very good," nearly "best"—separating freely from the stone. It ripens the beginning of autumn. It originated at Schenectady; and when grown from the stone varies but slightly from the parent—showing it to be a distinct variety.



ROYAL HATIVE OR EARLY ROYAL.

ROYAL HATIVE OR EARLY ROYAL.—This is a French Plum—valuable for its early period of ripening. The tree is vigorous, with stout, short, very downy shoots. The fruit is medium in size, roundish, slightly wider at the base; skin light purple; stem half an inch long, stout, scarcely sunk: flesh with a rich high flavor, nearly free from the flattened, ovate stone. It begins to ripen soon after mid-summer, & continues for some time.

Valuable Liniment.

MESSRS. EDITORS—As for liniments, the best I know of for horses or human beings, for sprains, swellings, (slight, consequent on blows, &c.,) in horses, and sore throats and rheumatism in horse-masters, is as follows:

Equal parts of hartshorn, (aqua ammonia,) oil origanum, olive oil, gum camphor, laudanum and spirits turpentine—all of best quality—to which add three parts good soft-soap. I have used this for several years. H. L. T.

Successful Culture of the Potato.

MESSRS. EDITORS—Having this year sent to our State Agricultural Society a specimen of our potatoes, in competition for their prize for the best acre of potatoes, I send you a copy of the statement which I send to them. It will be seen that I have grown them this year on quite a different system to what I did last year, (although on the one eye system.) My object in growing them in this way, was to prove that potatoes planted with one eye, do not require careful culture, nor careful handling, as some may suppose. All that I have grown in the kitchen garden and on the farm, have been treated alike. That my system or treatment will prevent disease, is a thing I never pretended; what I advocate for this system is, that it takes less potatoes to plant an acre, and the potatoes are of a better size. Also, that it will not cost half the expense to cultivate them. It may be said that our ground is superior, which is not the case.

I will state the highest that has been raised to the acre of potatoes here, by any farmer, (and on this farm only 60 bushels,) is 75 bushels to the acre, and the farmers say if they got that they would consider themselves well paid. Our farmers around here have lost all their potatoes this year by disease, and those farmers have told me I had a secret to grow and keep disease off, and telling them to the contrary is no use. All I can say is, I wish that I had a remedy for it, and I should consider myself an independent man. We have no cure for it as yet; preventives there may be, and all who think they have one, are justified in following it out; but all that has been said, only reminds me of the story of the chameleon's color and the three travellers, where all were right, and all were wrong. I am not at all prejuiced in any of my opinions. If any one can show me that I can raise a large crop with less expense than I raise mine, I shall certainly try it, and if it succeeds I shall be the first to follow it.

My culture and expense is given on affidavits of myself and the men who worked them, measured, &c.

I noticed the past season, a statement that lime sown on the leaves of the potato, would prevent and cure disease. This is not the case, and I think I can explain how this theory may have originated. Potato growers will sometimes see their vines covered with a black fly, which eats the leaves through, and sometimes will destroy the whole plant by stripping it of its leaves, and when withered it has the appearance of a diseased stem, and in fact is considered such; they infest the plant sometimes so badly that in two or three days your stems are gone. By applying slacked lime to them when you notice it, you immediately kill them, and your vines resume their former color and will thrive, which may lead some to suppose that they have stopped the disease.

Another dissase (from animal life,) proceeds from heavy sod ground, when broken and planted with potatoes. It is a grub with a long white body (one to two inches) and black head. Those grubs will get on the surface and eat the stems through, or eat them round, the result of which is that the stems die and look like diseased stems. By applying slacked lime in the same manner as applied for the fly, you kill them, as the moment the lime touches them they are killed. I had a field of potatoes this season, planted on sod ground turned in the spring. In the summer they were infested with the fly on the leaves and the grub at the stems. They made such havoc before I noticed them, that I was told they were all diseased and that the crop was gone. I applied the lime on the leaves and ground, and killed the whole of them. My plants then flourished and looked as green as ever, and I have had no disease in them and a good crop.

Another correspondent says potato disease is contagious. I must certainly differ with him in that which my experience this season will prove. I got some Gibson's Seedling potato, which were said to be very fine both in size and quality, but with me it has proved perfectly worthless in everything as a potato, it being the only potato I had that was diseased, and three parts of them were so when I dug them. When I planted them I had not sufficient of them to plant out the ground; the balance of the ground I planted with Prince Alberts, 30 inches from Gibson's Seedling. In digging this lot of Prince Alberts I had not a diseased one, which to me is conclusive evidence that the disease is not contagious. Further, if contagious, how did mine escape, when all around me had it badly?

If we were to have more lime applied to our potato ground, we should hear less of bad potatoes. Lime is an essential manure for the potato, to those who wish a good mealy one, and for any land that is infested with grubs and worms, salt is also essential, as it will kill them, and of course prevent their destroying the tubers. I have experimented with salt as a cure and preventive, but I could not see its effect, and growing potatoes on a large scale it would be an expensive manure.

Another correspondent states that leaving them exposed to sun and air will disease them. Such is not my experience, which will be seen in my practice. Further, I expose all my potatoes intended for early growing to the sun until they are perfectly green. This season I have done the same and no disease.

STATEMENT.

The Prince Albert potatoes shown, are a sample of one acre, which I enter for competition for the best acre. They were grown by me the past season on a yellow sandy,or rather gravelly loam soil, without any manure. The land was manured in the spring of 1856, with barn-yard manure and black muck, for parsnips, carrots, cabbages, &c. This season I have given those potatoes no manure. My yield this year was not as large as 1856, which I attribute to our short season, as last year they had a month's longer growth.

My system of growing them has been altogether different to what it was last year. I plant my potatoes with one eye to each set, which system it has been said was only applicable to garden culture. I grew them this year (one eye) with quite different treatment, so as to convince all it was as applicacle to the farm as the garden. I also grew them on sod ground plowed this spring, in the same manner and treatment. My yield this year was 238 bushels to the acre, and no disease. I have kept an accurate account of the expense in my daily journal, which I give, also the time of working and harvesting them:

April 20—Prince Albert potatoes cut—one eye left to each set.

April 21—Mixed with slacked lime and well turned over—five and a half bushels to the acre.

May 16—Ground plowed for potatoes.

May 18—Ground harrowed both ways.

May 19—Opened drills, thirty inches apart and from six to eight inches deep.

May 22—Prince Albert potatoes, set in drills twelve inches apart. As we dropped the sets the plow followed and covered to the same depth as we opened them. In this way we left them until the 5th of June, when I run the Scotch harrow both ways, until the ground was level.

June 12—Potato stems showing above ground, and ground very weedy—harrowed both ways to kill weeds.

June 16—Prince Alberts three inches above ground, plowed them same as we opened the drills, (with two mules,) completely covering the stems; running light at one side of stems, and on the opposite side to the full depth of the plow, covering them the same depth as they were planted. Then harrowed both ways, leaving all again level. This takes out all weeds, and gives the plants a good start.

June 30—Earthed up potatoes with same plow as we opened drills with, and with but one mule; run along one side close to the stem, so that the mould lays them (stems) nearly flat; next plowing run same way, on opposite side of stem.

July 9—Earthed up on the above mentioned side.

July 27—Plowed both sides of drills with light corn plow, to kill all weeds. This was their last working. It will be seen there is no hand work done on them, except dropping the sets.

Sept. 2.—Stems commenced to wither; examined and found no disease. Selected out the greenest and ripest stems (12 of each;) dug them and let them lie on the surface to see if that would disease them.

Sept. 18—Examined all the potatoes carefully that were left on the surface on the 2d, and found all perfectly sound.

Sept. 22—Commenced to dig Prince Albert potatoes by running a one horse plow close to the stems, throwing the mould to the center, then following with the garden spade and digging them.

Dug Gibson's Seedling potato, which were three parts diseased. Some Prince Alberts were planted with those, (next rows,) and none of the Prince Alberts have diseased, which proves in this case that potato disease is not contagious.

We were offered for these potatoes on the ground for the New-York market, one dollar a bushel. We have been selling them for four dollars and fifty cents per barrel for planting.

The whole cost of cultivating the above acre on this system, is eighteen dollars and forty-one cents.

Five and a half bushels of potatoes for sets, at the price we sold them at last spring, $1.50 per bushel, would be $8.25.

Total cost of labor and sets, $26.66. GERALD HOWATT. *Newton, New-Jersey, Dec*, 1857.

How to Make Court Plaster.

Strain a piece of black silk on a frame, and brush it over with a solution of one ounce of isinglass in 12 ozs. of proof spirit, and mix two ounces of tincture benzoin (Turlington's Balsam) with it. When dry, repeat the process four or five times, finishing off with a coat of tincture black balsam of Peru. For a cheaper kind use *common glue* instead of isinglass.

Barberry for Hedges.

MESSRS. EDITORS—Will you, or any of your subscribers, advise as to the utility and practicability of the cultivation of the Barberry bush for hedge. It is indigenous with us, and may be seen scattered over this part of the country, thriving by the side of old walls and fences—hardy—and susceptible of being trimmed symmetrically, and would seem to be admirably adapted to cultivation for hedge. Under proper cultivation it would be strong, and I should judge durable, and when in flower highly ornamental, with its dense and deep green foliage—while the berries are not only gorgeous in color, but a valuable luxury for the table; for the latter purpose alone it would almost seem warrantable to cultivate it. It is quite probable it may be cultivated from slips, though more likely the better way would be from seeds. Any information upon the subject would be a great public benefit, as well as satisfaction to J. H. C. *Valley Falls, R. I.*

We should be glad to see a trial made with the barberry for hedges. It would probably require several years for it to become stout enough—probably at least twice as long as the Osage Orange. It grows naturally very thick, with numerous stems, and the only shearing needed would perhaps be narrowing the top, so as to prevent the bottom from becoming open. For this purpose, it would have to be propagated exclusively by seed, as it scarcely grows from cuttings, and slowly by division. Its numerous prickles are too small to afford much protection against cattle, but would be efficient against smaller intruders. The only question of its success appears to be in relation to its height and stoutness, and its forming one even uniform hedge

Culture of the Potato.

MESSRS. EDITORS—I saw several remarks in your last number, as regards the cultivation of potatoes, by J. C. CLEVELAND, which I have no doubt will be of great interest to many of our farmers, although I have never tried salt as a fertilizer. My plan has been for the last eight years, to change my seed as often as once in every two years, even if I plant the same sort. I have for the last six years taken the trouble to send from 75 to 150 miles for my seed, and think that I have been paid for it in a tenfold proportion. The sorts that I have been most successful with are the Prince Albert or white Napoleon, the Irish lumpers and the Peach Blows. These three kinds never have showed any symptoms of the blight in this section of the country, while many of my neighbors have kept their old sorts, and have lost all or nearly all, the two past seasons. I planted in May last, 240 rods of ground with white Napoleans, and gathered over three hundred and seventy-five bushels in October last, as nice potatoes as ever any man need look at. They are admired by all; they are very white and smooth; many of them measured from eight to ten and a half inches in length; the tops all remained in a perfect state of health until they were cut off by the frost. The tops on the Peach-blow do the same.

My plan of cultivation is to take stalk ground, or else plow it in the fall. I generally select the smallest ones that I raise for my own use to plant—cut each potato, be it ever so small. I seldom ever use over four and a half or five bushels of seed to the acre.

Method of Cultivation.—I generally use about 20 loads of coarse straw manure to the acre—spread and plow in—then plant my seed three by three and a half feet apart; when the plants begin to show themselves use a top dressing of hen manure, plaster of Paris and leached ashes, mixed together, a full hand to the hill, which I have found to be a great benefit to me. G. MCMAHON. *New Milford, Ct.*

Temperature of Cream for Churning, &c.

MESSRS. EDITORS—In the December number of the Cultivator, p. 379, "A Morgan Farmer" makes several inquiries, which you request any of your readers to answer.

1st. "What is the proper temperature for cream to be in at the time of churning?" I find the temperature of the cream, when put into the churn, to make the best butter, should be 55° Fahr., and gradually increased in the process of churning to 62° or 64°, at which degree the butter should come; the whole quantity and the best quality is thus obtained without increasing the labor. To ascertain this without the "Thermometer Churn," remove a common thermometer from the case, and carefully insert into the cream, allowing it sufficient time to mark the degree.

2d. "Is the flavor of butter injured by washing in clear spring water?" I have never found pure water to injure the flavor of butter; sometimes it will greatly assist in the separation of buttermilk; but impure water should never come in contact with butter

3d. "What is the proper depth to set milk in pans, to obtain the greatest amount of cream?" A series of experiments, published by L. N. Sherburn in 1852, detailing the particulars of both trial and result, prove that to obtain the greatest amount of butter from a given quantity of milk, the best way is to have large pans and fill them. My observation coincides.

4th. "Will it not make more butter, and of as good quality, to let the milk stand until it thickens?" The greater amount of butter obtained from allowing the milk to stand until it thickens, or till all the cream is risen, and the less time it occupies in churning than to churn sweet cream, (as that has to become sour before butter can be produced,) in my mind, more than compensates for the slight difference there may be in its quality.

5th. "Would it not be more profitable to churn the milk than to set it for cream, in a dairy of ten cows?" I think not, if proper care is taken in separating the cream from the milk, unless your correspondent lives where he can find a ready sale for the buttermilk. It requires a longer time for churning, and I think we cannot obtain as much butter, from the difficulty of separating the small particles of butter from so large a body of fluid.

6th. Is not the cow spoken of sometimes not milked clean? which, with some cows, will produce that result; or it may be garget—if so you will find in the June No. of THE CULTIVATOR for 1856, page 174, a remedy. M. C. L. *Ballston Center, N. Y.*

Mode of Collecting Seed Wheat.

Sometime last September, or thereabout, I read a paragraph in one of your valuable papers on thrashing seed wheat. The writer complained and very justly, of the practice of *thrashing* wheat for seed. His reason was that it injured more or less the germ, and tended to deteriorate both the seed and the crop. I wish to say to all wheat growers, that when a boy in England, my father, who was a farmer, used to *whip* out his seed. He did it as follows: He placed in his barn a large stone, nearly of the size of a bushel basket (a hard wood log would do,) and taking half of a sheaf at a time, with a strap round it, which he held in his hand, would then whip or strike the head a few times on this stone. All the best kernels would shell out—the remainder he left to be finished with the flail. After this brief whipping, he would renew and whip away handful after handful, until he obtained a supply. By following this plan yearly your grain will improve, as you will sow none but the full ripe and best grain, free from the murderous bruising of the flail and machine. Old uncle Fogy may fancy this method beneath his regard. Let him think so; but let farmer Experiment follow it a few years, and see what will be the result. My employment was to take the sheaves, open them and collect out all the chess and trash, (a work every farmer in the land ought to do.) In this way he always raised clean and heavy crops of wheat. W. B. L. *Montoursville, Pa.*

A Prairie Farm in Iowa.

Extract of a letter from a correspondent in Butler Co., Iowa:—"I learn from time to time, of many enterprising farmers who are making first class improvements in the several neighborhoods hereabouts. One that has lately come to my knowledge, and especially worthy of mention, is that of Mr. CLARKSON, located 15 miles south of our Grove. Mr. C., for a period of some 20 years, published a paper in south-eastern Ind. He is located two and a half miles from timber, on a prairie farm of some 3,000 acres, upon which, during the past season, he has built a modern cottage, at a cost of $7,000. He grew this year 10,000 bushels of corn, and he informs me that he made several barrels of Sorghum syrup, at a cost of 25 cents per gallon. Mr. Clarkson commenced operations upon his land three years since, under cover of a small muslin tent."

Cleaning Clover Seed.

Permit me to inquire through the columns of your valuable paper, which is the best mowing machine for seed clover? The machine must cut about 120 to 150 acres every season.

How many acres will the machine cut in 10 hours?(1)

Which kind of clover huller will be best? There are three different kinds.(2.)

Is it necessary to thresh the seed clover first with a common threshing machine?(3.)

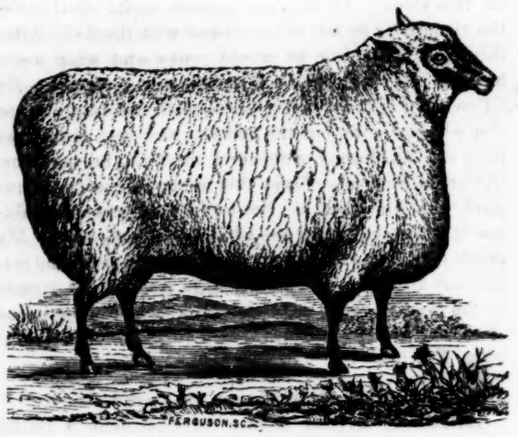
Which kind of horse power will be the best for the clover huller, and how many horses are necessary? How many bushels seed will the huller clean on the average in 10 hours?(4.) EPR. SCHMIDT. *Henry Co., Ill.*

1. Any good *combined* mowing and reaping machine will answer, as Wood's Manny, Ball & Altman's, Kirby's, &c. Attach to the machine the platform commonly used in reaping grain, with a board behind to assist in retaining a larger load of the cut clover, and when each pile sufficiently accumulates on the platform, rake it off in heaps. A good mowing machine, with two horses, usually cuts about an acre an hour.

2. There are five or six different clover hullers, and we are unable to say which is best—a very good one, however, is manufactured by Hildreth and Charles, of Lockport, N. Y. The price of their huller and cleaner is seventy-five dollars.

3. A common threshing machine is required first to separate the seed from the straw.

4. Any good horse power will answer. If our correspondent should procure a clover machine of Hildreth & Charles of Lockport, the same firm will furnish a neat, durable and compact horse power, made wholly of iron, for one hundred and ten dollars. Four to six horses are usually employed, and the machine will hull from fifteen to thirty bushels of seed per day, varying with the quality and condition of the seed.



Shropshire Downs.

The above engraving represents one of three prize wethers, bred by and the property of Henry Smith, Jr., of Sutton Maddock, Shiffnal, England. They received the first prize, with a breeder's silver medal, at the Birmingham and Midland Counties Show of Christmas, 1856. We have had the cut drawn and engraved from a fine plate in a recent number of the Farmer's Magazine—which speaks of the sheep themselves as admirable for "splendid quality of meat, broad chines, and full plaits, and wonderfully good loins and rumps."

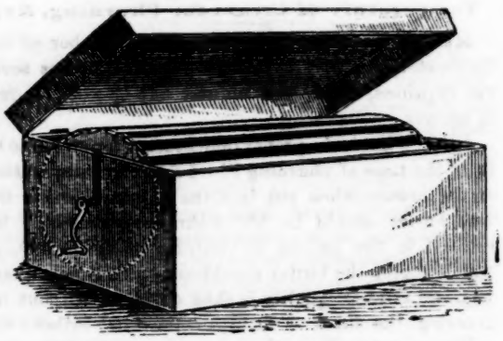
This breed—the "Shropshire Downs"—is now rapidly coming into notice and repute in England. They are originally descended from a hardy mountain breed, through which they inherit an excellent constitution. This enables them to thrive on some of the most exposed districts; while on more fertile pastures they evince a rapidity of growth, and natural tendency to a heavy weight at an early age, certainly not surpassed by any other breed. The exertions of the Salopians, however, have not been directed to size and weight only. The Shropshire sheep unite with these two recommendations—excellent form and symmetry, first-class wool of thick pile and great length of staple, well-formed, good dark brown heads, deep chests, famous legs of mutton, with a good dock set high on a straight long spine.

The class of "Short-wooled sheep not being Southdowns," now affords the Shropshire breeders an opportunity of exhibiting their stock on fair terms at the meetings of the Royal Agricultural Society. At Salisbury in this section the Shropshire Downs took three of the prizes for rams, out of the four offered. At Birmingham, as we have often had to record, the show of this kind of sheep is one of the chief features.

Washing Soap.

2 lbs. bar-soap—1 oz. borax. Shave the soap fine. Put that and the borax in one quart of water, and simmer till well mixed. One-fourth of a pound of this compound is sufficient for a washing for six persons. Soak the clothes a few hours, and then put in the soap and boil thirty minutes, and then rinse in two or three waters, and hang out. If the clothes should not be clean enough after boiling, a little rubbing will generally suffice. SENEX.

MILKING THREE TIMES A DAY, when cows give a great quantity of milk, is a great advantage. Try it.



A New Vegetable Washer.

Mr. NUTTING has, I see by your last no., invented a root washer or cleaner. So have I; and as it is not my intention to send it to the Patent Office, I will send it to the *Country Gentleman* for public use. When I can spare the money, I want to get one or two of Mr. Nutting's inventions, which, from his description, are, I think, good. I send herewith a draft and description of my vegetable washer.

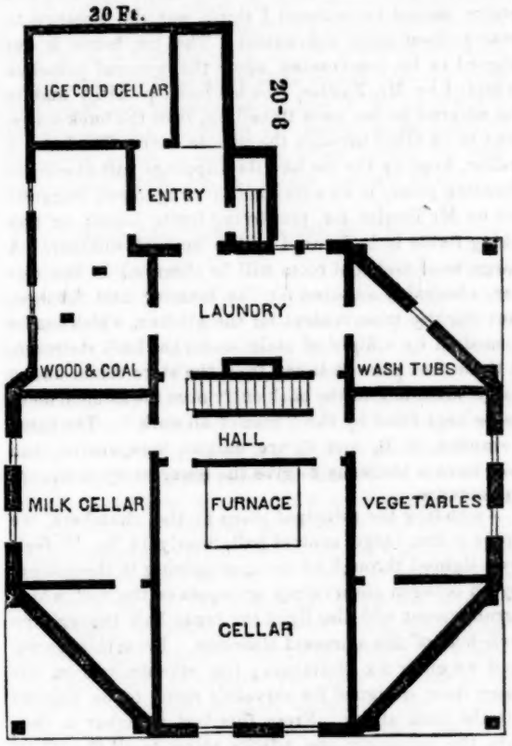
Description.—An oblong water-tight box, 2 by 4 feet, as the case may be, and 2 feet deep, with a lid on hinges. Inside of this is a cylindrical open work or barred frame, revolving in gudgeons fitting in each end of the box. This cylinder revolves at a distance of six inches from the bottom of the box, and is opened by means of one of the bars arranged for that purpose. The box being half filled or nearly so with clean water; the potatoes, beets or other roots to be washed, are then put into the cylinder, the bar replaced, the lid shut down, and the cylinder turned by means of the crank outside the box. Vegetables can be washed easily, quickly and thoroughly in this machine, although a home-made concern. The gudgeons on each end of the cylinder fit down in a gain or place cut in each end. The cylinder is thus easily removed and the box washed out after being used. H. H. *Near Tacusa, Ill.*

Good Spring Pigs.

ELIHU ELDREDGE of Union Springs, N. Y., has shown the present season the advantages of good management in rasing spring pigs for autumn fattening. They came on the 29th day of 3d mo. (March) last, and were slaughtered on the 23d of last month, being less than nine months old. Their early feed—a most important item in causing their ultimate large size—was skim-milk, undiluted, mixed with meal—and regularity and cleanliness were properly attended to. They were half Suffolk, and no doubt this admixture of blood greatly favored their growth and fattening. They were kept in a *floor pen*,—which was thought to be important on several accounts, and more especially so as preventing rooting. They were six in number, and the following were their respective weights when slaughtered and dressed—357 lbs., 351, 322, 316, 310, 299—aggregate 1955 lbs., and average 326 lbs. Our readers will find on p. 13, of vol. 7, of the Country Gentleman, a statement of the mode, very similar to this, adopted by JOSEPH GREENE of Macedon, N. Y., and attended with equally successful results; and for which he thinks he is mainly indebted to feeding *undiluted* milk at first, (not allowing any slop or dish-water to be thrown into it,) and by taking especial care that there are *as few pigs* as will eat the food furnished them.

Octagon Houses.

MESSRS. EDITORS CO. GENT.—I am not a mechanic, but claim to be a progressive, and as such feel a deep interest in whatever is designed to promote the happiness of man. The subject of dwelling-houses I regard as of this character. Our houses cost in the aggregate, an immense amount of money, and it appears to me that we do not always build in good taste; nor in such manner as to secure the greatest amount of comfort and convenience for a given expenditure; nor, I may add, so as to promote the health of our families by proper ventilation, bathing conveniences, large airy rooms, &c. I have been a housekeeper more than twenty-five years, and during all that time have occasionally spent evenings in drawing plans of houses, hoping thereby to make some valuable improvements over ordinary plans, for the benefit of whomsoever should choose adopt them. What we know of geometry satisfies us that neither you nor I can expect to live long enough to exhaust the subject, even though we should do nothing else but draw plans while life lasts. Many plans I have heretofore drawn, have been regarded as



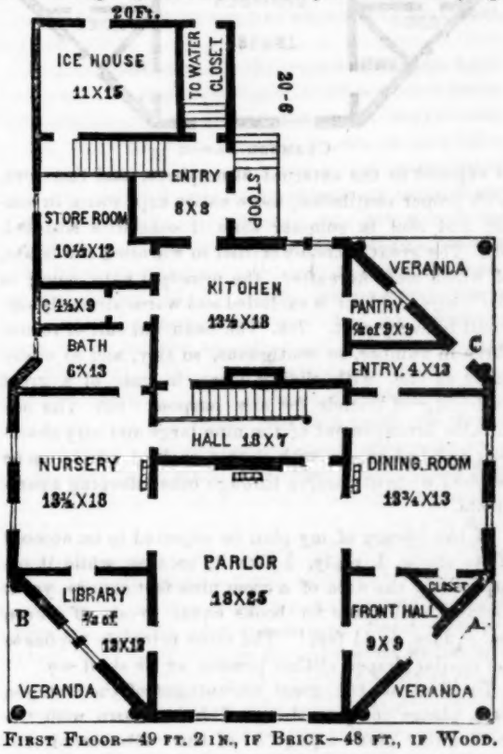
BASEMENT—20 FEET TO AN INCH.

possessing rare merits, and although they have suited me as well or better than any others I have seen, yet none of them ever fully satisfied me. I have always proceeded upon the assumption that every intelligent family requires a kitchen, pantry, store-room, dining-room, parlor, library, nursery, bath-room and clothes press, all large and conveniently arranged, *on the first floor*. I do not remember to have seen a plan published containing all these conveniences, except upon a scale so extensive as to be too expensive for persons of limited means.

Some six or eight years ago, knowing the capacity of walls built in the form of an Octagon, to inclose space, I tried what skill I possessed in that direction; but crooked, odd shaped rooms had such a tendency to make me *cross-eyed*, and thus caused me *so much pain*, that I finally abandoned it as impracticable to admit of square or rectangular rooms, such as I think the principal rooms of a good house ought to be.

A few days ago, happening to be looking over the books at our principal book-store, my attention was drawn to a book entitled "A Home for All," by O. S. FOWLER, Esq., on Octagon houses. I have read this book with much interest; but the plan he calls "the best plan yet," on page 161, does not at all suit me. The rooms are about as broad as they are long, and as usual with these plans, the inner corners are cut off; and another fatal objection exists, in the close proximity of the kitchen to the dining-room, provided the latter is ever to be used for any other purpose. The heat and flies in summer, and smell of cooking at all times, renders this "*best plan*" very undesirable, in my estimation.

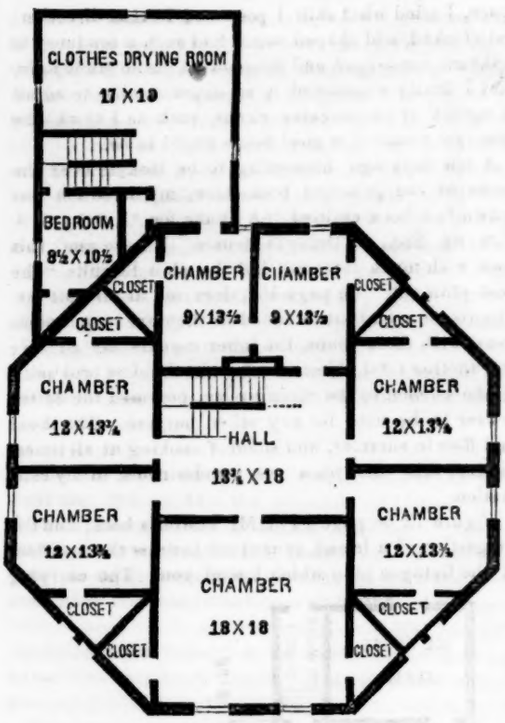
Figure 13, on page 84 of Mr. Fowler's book, and the suggestion of a friend, caused me to draw the first floor of the Octagon plan which I send you. The carrying



FIRST FLOOR—49 FT. 2 IN., IF BRICK—48 FT., IF WOOD.

out of the plan in detail is my own, and *removes all my objections* to the outside form adopted; nay, more, it settles the question in my mind that *this is the best plan* I have ever seen, for the following reasons:

1st. Economy of building; the walls inclosing more room for their length than any other desirable shape; and only one chimney required. 2d. Symmetrical proportions of the plan throughout. 3d. Although simple in form, its perfect convenience can scarcely be excelled, if equaled. 4th. The close proximity of one room to another, and yet the kitchen is shut off from the front part of the house by two doors and an entry, *as it ought to be* in every house of much size. 5th. The fact that *only one side, or one end*, of any room



CHAMBER FLOOR.

is exposed to the external atmosphere, and therefore, with proper ventilation, more easily kept warm in winter and cool in summer than if otherwise situated. 6th. The great economy of fuel in warming the house, of which more hereafter; the principal halls being in the centre, cold air is excluded and warm air easily diffused to every part. 7th. The beautiful suit of rooms, three in number, so contiguous, so airy, and so easily made as one, with sliding doors, in case of a great gathering of friends for any purpose. 8th. The admirable arrangement of the nine large and airy chambers and bed-rooms, with closets, each of which can be reached without passing through other sleeping apartments.

If the library of my plan be objected to on account of its shape, I reply, I like it, because while it occupies only the area of a room nine feet square, yet it contains wall space for books equal to one of eleven feet square, or 44 feet! The same principle applies to the similar shaped clothes presses, as we shall see.

To illustrate the great advantages of the Octagon form, please compare the one I have drawn with the rectangular plan on page 51 of the "Illustrated Annual Register of Rural Affairs" for 1858. That plan has about 20 feet *more out-side walls* than the main part of the one I send you; and even *the little plan* in the Country Gentleman of December 3d, page 369, has nearly as much in length of outside walls as my plan, yet what a difference in favor of the Octagon? The truth is, the Octagon form contains from fifty to one hundred per cent. more room, in proportion to length of outside wall, than the plans most in use in this country.

As the plan I send you nearly explains itself, I need only speak of a few features. The dining-room closet is half of five feet square, and of course will contain *ten feet* of wall space for shelves. The entry, leading from the kitchen and dining-room to the side door, is a convenient passage-way for the ordinary use of the family. This entry can be used in part for a closet, if any prefer, by shutting off the kitchen from the side door. The pantry is *half* of about nine feet square, and contains *thirty-two feet of wall space*, equal to one of eight feet square, which, it will be observed, is large. I have studiously shut off the kitchen from any *direct* communication by one door, with the front part of the house, as, after 25 years experience, we so prefer it. The bath-room, back of the nursery, is so located as to admit hot water through a pipe from the kitchen fire without the least difficulty, and at small expense. Cold water should also be introduced through a pipe to a reservoir between the ceiling of this room and the chamber floor; the bath, clothes, and store rooms to be only eight feet high, whilst the remainder of the first story is designed to be 12 feet. Back of bath-room is a clothes-press sufficiently convenient of access, and also a short passage-way from nursery to kitchen. The pantry and store-room in such close connection with the kitchen, will be appreciated by housekeepers. The back entry, 8 by 8, the outside door and stairs, cannot be bettered I think, nor the passage to water-closet more convenient. The ice house is designed to be constructed upon the general principle adopted by Mr. Fowler, (see his book, p. 116,) and to be entered for ice near its ceiling, from the back stairs, and to be filled through the outside door. The ice cold cellar, kept by the ice and its drippings just above the freezing point, is an *admirable arrangement*, suggested by Mr Fowler for preserving fruits, butter, or any thing liable to be injured by the heat of summer. A large wood and coal room will be observed in the cellar, admirably situated for the laundry and furnace, but *slightly* inconvenient for the kitchen, which can be remedied by a flight of stairs under the back staircase, a three feet passage taken from the store-room, and a large wood-box in the back entry near the kitchen door, to be kept filled by the "man of all work." The three verandas, A, B, and C, are unique, inexpensive, and will have a tendency to give the lower story a square appearance.

Ascending the principal stairs to the chambers, we enter a fine, large, central hall, nearly 14 by 18 feet, well lighted through an octagon opening in the ceiling, by an octagon observatory or cupola on the roof, which arrangement will also light the lower hall through the well-hole of the aforesaid staircase. From this central hall we enter six chambers; the seventh one on the same floor, designed for servant's room, to be entered via the back stairs. From this last chamber a door into the adjoining one admits access to all the others through the central hall. It will be observed that in this story there are eight clothes-presses, one for each room, and an extra one for the general use of the house. These closets are each half of seven feet square, and contain 24 feet of wall space—equal to a closet six feet square! They are unusually large, and might well be reduced so as to allow the four side chambers to be enlarged to 13½ feet square each. Another servant's bed-room is entered from a broad step about two-thirds the way up the back stairs, and contains a closet. Another closet, and a good clothes-drying room for winter completes the upper story.

My sixth reason for liking this plan was economy of fuel. Let us see. The furnace should be placed in the

cellar under the center of the house; three registers, one each in dining room, parlor and nursery, would supply the first story. The smoke pipe for the furnace should be made 12 inches in diameter, and pass through the wall into the cellar hall, thence up through the first and second floors of the hall into a large sheet-iron dumb stove; thence to the chimney near the chamber ceiling. From my knowledge of the immense amount of heat usually lost through the smoke-pipe of a furnace, I do not hesitate to express the opinion that this arrangement of pipe would *thoroughly* warm the halls and chambers, inasmuch as *all the heat* thus generated must ascend to the upper hall, and then pass through the rooms around said hall, before escaping.

In regard to the external construction of this house, any one who adopts it will be likely to exercise his own taste. I think it would look well to be built with walls 28 feet high or over, roof nearly flat, and to project say four feet, with broad frieze and large tasteful brackets. Those who like the Gothic style could build with walls of less height, and with four or eight gables!

In regard to cost I cannot speak advisedly, but am of the opinion that it can be built at any cost from two to four thousand dollars, according to the style adopted, the kind of materials used, and the place where built.

I believe this plan to be alike superior for the large mansion or the modest cottage, and if any of the subscribers to your valuable and useful paper shall be benefitted by it, I shall not have labored in vain. Respectfully yours, S. H. Mann. *Beloit, Wis.*

Hoof-Ail—Management of Stock.

Messrs. Editors Co. Gent.—I was much pleased with the sensible remarks of your correspondent, Mr. Dickinson, on "Hoof-ail in Cattle," in your paper of 26th Nov., and sincerely hope that they will promote the cause of humanity they are so well adapted to serve, by leading farmers to devote more attention than is usually given to the comfort and warmth of their stock during the severe cold of the North American winter. By referring to your paper for May 17th, 1855, you will see that I then advanced a similar explanation of the pathology of Hoof-ail as it occurs in America, to Mr. Dickinson's, predicated upon an account of the symptoms given by another of your correspondents in a previous paper. At that time I was not aware of the influence attributed to "ergot" in producing this disease in this country, but from what I have since heard and read, especially from your remarks in the Country Gentleman of 10th September last, I must allow that there is a *prima facie* case made out in its favor, and certainly enough to warrant hay in which it is abundant, being looked upon with great suspicion and distrust by stock owners.

It does not seem to me, however, that the two explanations offered, of the cause of this disease, viz., cold, and the ergot in the hay, are at all antagonistic of each other, but rather that when it is particularly prevalent, both may be acting in concert, although each, taken by itself, may be adequate to the production of the effects witnessed. We are all too apt in pathological investigations, especially those not conversant with the phenomena of animal physiology, to look for *a cause*, and to rest satisfied when we think we have discovered that, instead of keeping constantly before us *all the causes* by which the condition we are investigating can be produced. And hence we often, while removing one source of evil, leave others of nearly equal magnitude in operation, and the benefits we anticipated, being for this reason not forthcoming, we at once discredit instead of praise, because we have discovered only a part instead of the whole. The soundest hygeinic wisdom is, when disease is apprehended, to remove all the causes that tend to the production of the disease we would obviate.

In the communication I allude to, sent you two years ago, I mentioned the fact well known to cattle practitioners of any experience, that such loss of the extremities as those spoken of, were frequently the consequence of long-continued debilitating disease, but when this happens it is through the induction of the same condition as that produced by extreme cold, or by the effects of ergot on the system, namely, the inability of the circulation to maintain the vitality of parts so far from its centre. There can be no doubt but all the three causes spoken of, have this effect, and that their results will be in proportion to their intensity, and to whether two or more of them be in operation at the same time, which combination, when it happens, must of course produce more aggravated mischief than when only one exists.

The practical lessons which I would urge upon American cattle owners, who would avoid this and many other sources of loss, are to adopt Mr. Dickinson's advice, and feed more liberally, to shelter and litter their stock more comfortably, and as far as possible to avoid any diseased or damaged form of nutriment whatever. It has always seemed to me that one of the greatest and most ruinous errors of American farming is the little attention given to providing for the feeding and warmth of the cattle. In Scotland, where the success of agriculture, considering the difficulties it has had to contend against, is perhaps as great as in any other part of the world, as witnessed by the comfortable condition of the farmers generally, and the high rents they are able to pay for a bleak and sterile soil, the whole and sole basis of their prosperity rests on the care they take of their cattle. From the first day of January to the last day of December, the farmer's principal outlook is to provide for his live stock—from the hour a calf is dropped till the day it goes fat to the butcher, it is an especial object of care and attention—and whatever other crops are raised, thos necessary for the proper feeding of the cattle are never neglected. Would American farmers direct their attention more than they do into the same channel, I have no doubt it would be much for their own profit, as well as for the comfort and health of those inferior members of the animal kingdom whose lives and welfare providence has committed into their hands. The bare idea of a poor dumb animal lying in an exposed shed, or with its head stuck in between two stanchions, and living on a starvation allowance of unwholesome hay, till its feet become frozen for want of vital stamina to keep up the circulation in them, is alike repugnant to sound economy and christian humanity. And no farmer has the right to allow himself the enjoyments of a warm fireside and comfortable bed, till he has first measurably provided for the wants in these respects of his domestic animals. Now is the time when winter is setting in, for farmers to show that they belong to that merciful class that regardeth the life of their beasts, and if they do so they may rest with full assurance on the immutable laws of nature, that as they sow they will reap, and that even in this life they will have their reward. M. A. Cuming, V. S. *St. John, N. B.*

Hungarian Grass—German Millet.

Much has been said in the Iowa papers the past year, about a new (as it was supposed) kind of grass, called "Hungarian grass," from its having been introduced there by an emigrant from Hungary. From its description, we had little doubt that it was a variety of Millet. We are indebted to Mr. BUEL of Keokuk, for a quantity of the seed and stalks of this Hungarian grass, which proves to be the well-known German millet, (*Setaria germanica,*) which has long been successfully though by no means extensively grown in various parts of this country. There are three varieties of this millet, differing we believe in nothing but the color of the seed,—the yellow, white, and purple, and the seed sent us from Iowa includes all three colors. It is an annual plant, and requires a rich, warm and well pulverized soil; and we are not at all surprised to hear of its extraordinary productiveness on the prairie soils of the west, where we doubt not it will be found a much better crop for hay than Timothy, which does not succeed well on the prairies.

In our last vol. (Co. Gent. vol. X, p. 234—Cult. for 1857, p. 338,) a Connecticut correspondent gives an account of an experiment he made in its culture the past summer. He sowed one acre—the soil was stiff clay, and the seed badly got in, being covered too deep, and yet he harvested over three and a half tons to the acre. In our vols. for 1855, will be found the statements of Hon. A. Y. MOORE, President of the Michigan State Ag. Society, and Mr. S. M. BARTLETT of the same State. Mr. M. says—"Millet has been a favorite crop with me for the last five or six years. There is no kind of hay that my stock of all kinds, prefer to millet." Mr. B. says—"I am greatly pleased with it." We might make similar quotations in relation to it, from nearly every one of our vols. for years past. It has been thoroughly tested, and we have no hesitation in recommending it as a forage crop.

Butter-Making in Winter.

"Winter butter" has no very enviable reputation anywhere, and compared with that made in June, seems an entirely different article. Of course there are reasons for this—let us enumerate some of them.

1. The character of the food is changed from green and succulent herbage, to dry hay, or more generally cornstalks and straw. There is really very little butter in the latter.

2. The season is changed from mild and warm, to cold, bleak, and uncomfortable. There is a constant demand for fuel to keep up the animal heat; this is partly at the expense of the butter product.

3. The management of the milk becomes difficult. If kept in a cellar, and a little above freezing, the milk becomes bitter before the cream rises; if allowed to freeze, the cream rises at once, but is injured in quality, and will produce very white butter; if kept in the kitchen pantry, when very warm during the day and cold at night, it does not rise well, and is apt to be bitter and acid.

Other reasons might be mentioned, but they will readily suggest themselves to the reader. Let us see what can be proposed to remedy the difficulties.

1. Feed well—not dry food alone—but grain and roots, as a substitute for grass. Carrots, turnips, beets, cabbages, etc., are all useful in keeping up the quality of the milk. Let their fodder be cut, and some nutritious slops be provided, if roots are not to be had, and it is well to cut the fodder in any case.

2. The comfort of cows should be carefully attended to. While they suffer from cold and filth, or foul air, they cannot yield as good milk as when in warm, clean stables, or in well littered and sheltered yards. Water should also be provided—it is the more needed when dry forage is consumed—and it should be so arranged that every animal could drink at will. A supply of salt is also necessary.

3. It is difficult to get a proper temperature for raising cream perfectly in winter. Some butter-makers scald their milk when first drawn from the cow—others let it stand twelve hours, and then place the pan containing the milk in a larger one filled with boiling water—and allowing it to stand twelve hours longer, find the cream raised perfectly. It is said that more and better butter can be made in this way than in any other.

Churning in winter, as usually managed, is often a serious operation. The cream stands too long generally—becoming very sour and bitter. Or, it is too cold and froths up, filling the churn but producing no butter though churned for hours. Let the cream-pot sit near the fire for a few hours before churning—stirring it occasionally, that all may get warm alike, and when it is at a proper temperature, 55°—feeling a little warm to the finger—the churning will be an easy half-hour's job, and the butter as yellow and hard as the season will admit of.

We have found that cows generally gave better milk, when fed on well cured corn fodder, than on second-rate hay, and with "a mess" of roots, apples, or pumpkins, would yield milk of very fair quality. Attention to securing a supply of proper food for cows, and better care of them, would go far to redeem the name of winter butter from its present character. J. H. B.

Ticks on Sheep.

MESSRS. TUCKER—If sheep are fed grain or oil cake meal, as they ought to be, I will warrant them free from ticks. It will be far more profitable than sulphur, (see Co. Gent. Dec. 17, p. 395.) I have some hundreds feeding; let any man come here at the end of March, and see if he can find two ticks to a hundred sheep. I guess he won't unless I have one that may have been sick—possibly it might have some. But some will say, we cannot keep stock sheep like men who fat sheep for market—but let me tell those farmers that they should keep their stock sheep in such condition that they won't breed ticks. Sheep pay badly that raise ticks. Sheep farmers, will you take notice of that? JOHN JOHNSTON. *Near Geneva.*

Buckwheat Straw for Sheep.

One word of the benefit of agricultural papers. A few weeks since I was looking over some of the back volumes of the Cultivator, which I have bound, to find something I then wanted to see, when I accidentally came across a statement that sheep loved buckwheat straw. Having several loads of that straw in my barn, which was cut early and got in in good order, and which I was intending to let my cattle pick from, and use the remainder for litter, I immediately went to my barn and tried my sheep, and found they ate the straw greedily. I think I shall realize enough from this discovery to pay for the paper a number of years. R. R. PHELPS. *Manchester, Ct.*

Inquiries and Answers.

PROPAGATING GRAPES.—I have some wild grapes that we find valuable for vinegar. Wishing to bring them under cultivation, I would like to be informed through THE CULTIVATOR of the mode of removing or propagating the vine—also the right season of the year to do it in. S. W. H. *Rossie, St. Lawrence Co., N. Y.* [Prune the vine severely this winter or very early in spring, to induce a young, stout, and vigorous growth of shoots—layer these shoots by midsummer or sooner, by bending them to the ground, and covering them with five or six inches of earth at the middle. A small excavation should be made to lay them in, as a matter of great convenience in covering them with the earth. In autumn these layers will be rooted, and they may be then cut off, removed and planted out. This is the easiest and most certain way of propagating them.

RINGING PIGS.—Will you or some one of the numerous correspondents of THE CULTIVATOR, inform me of the best way to prevent hogs from rooting in clover sod, or any other sod. My hogs are so bad to root, I have to keep them out of the fields, and that when they have as much corn as they can eat. M. PLANK. [The old remedy of ringing their noses, is efficient. A perforation is made between the snout bone and the proper nasal, and a short annealed iron wire thrust through, and the ends twisted together with pincers so as to form a small ring. It is a painful operation to the animal, of which he informs the whole neighborhood. The ring often breaks off after a time, and requires renewing. A pig will not root with such a ring. It is said to be a much better way, when the pig is young, "to cut through the cartilaginous and ligamentous prolongations, by which the supplementary bone is united to the proper nasals." The divided edges of the cartilage will never unite again, and the snout will always remain powerless for rooting.]

PUMPKINS FOR MLICH COWS.—Farmers do not seem to be agreed here, as to whether pumpkins fed to cows increase *the richness* but diminish the *quantity* of milk, or whether the quantity is lessened without any improvement in quality. Have no experiments been made by eastern farmers with sufficient accuracy to *determine the matter?* During the drought of our fall months, when the pastures are short, pumpkins are a cheap and convenient food for milk cows, but are they an improper one? T. B. *St. Matthews, Ky.* [Experience has shown that pumpkins are good feed for milch cows, adding both to the quality and quantity of the milk. The seeds, which are sometimes injurious, from their diuretic qualities, should be taken out before the pumpkins are given to the cows.]

DOVER POTATOES.—In answer to several subscribers of your valuable paper, I beg leave to say that I have no Dover potatoes to part with. The color of the Dover is red; it is of a roundish form, but a little flat on one side; quality for the table, white and mealy; in fact as long as there is a Dover potato to be got rid of, you can not sell any other around here. PETER SIDEBOTHAM. *Valley Falls, R. I.*

FALLING OFF OF MILK.—I have a cow which has given a regular quantity of milk all this summer and fall. On Monday morning she gave but about a pint of milk, and has given about that quantity at her subsequent milkings. She is in a yard, and can get at nothing to injure her; so I am sure she has eaten nothing which has caused the diminution. She still eats well and and seems healthy. Can you give me an explanation of it, or suggest a remedy? A. D. R.

GAS LIME.—Will you inform me through your valuable journal, whether gas lime is as good as lime in its original state, to be used on the same ground—if not, what qualities are lacking? We can buy gas lime for five cents per bushel, and other lime for six and a quarter and six and a half cents per bushel out the boats, and then we have to draw it about four miles. Now which will be the most profit to us in the end? D. D. BLAUVELT. [Our correspondent's question can only be answered by careful experiment. The farmers in this vicinity will not buy gas lime at any price, while in Philadelphia there is a great demand for it at five and six cents per bushel, and at New-Haven it sells for a cent a bushel more than fresh lime. See several articles on this subject in our last year's volumes.]

CUT FEED, AND TAR, FOR HORSES.—Is cut feed good for a mare with foal? or would dry hay and oats be better? [We know of no objection to cut feed.] Is tar good for horses? My mare had the horse distemper last spring, she coughed badly, and was swollen some on her belly; one of my neighbors advised me to give her tar, saying that it was the best thing for horse distemper and a cough he knew of. I gave her tar two or three times, and then wound the bit with tar, and as it was during spring work, and having no team but my horses, I kept her at work, and in one week her cough was nearly cured, and she got along and did well. But she was with foal, and foaled the second of July, and her colt was very poor and his legs very crooked. The mare was worked through the winter and spring until the first of June—not very hard, but was kept busy during good sledding and spring work. She was fed in part on cut feed. Now what made the colt so poor and crooked legged? An answer to the above will much oblige your humble friend. D. S. *Springfield, Vt.* [The colt was probably injured by the disease of the mare, and not by any cut food, nor by the remedy which assisted the cure of the disease.]

FARM MILLS.—Please let me know if there is a grist mill, to run by horse power, manufactured in Albany, and the price. J. F. S. *Kossuth, Pa.* [Such a mill, called the "Excelsior Farm Mill," is manufactured by R. H. PEASE in this city—price $50.

DISEASED CALVES.—About the middle of August we had a fine steer calf taken with all the symptoms of being choked. He had his tongue stretched out, breathed very short, coughing at intervals, with a wheezing kind of a cough. As he was in an orchard, we supposed that he was choked with an apple, and treated him accordingly. In course of a half of an hour, he ceased his hard breathing and coughing, and to all appearances was as well as ever. We then turned him and two heifers of the same age, into a field where they could get nothing to choke them; but he continued to have such spells of coughing until the latter part of September, when we found him dead in the field. We opened him, and found his lungs very much enlarged, weighing eight pounds twenty-four hours afterwards. We have inquired of a great many of our neighbors, but none can tell us anything about it. One of the heifers was taken in the same way a short time before the steer died, and the other a short time after. They eat nearly a bushel of ears of soft corn per day,

and still are very poor. Now, Messrs. Editors, if you or any of your many subscribers, can tell us through your paper, what this disease is, and what can be done for it, you will confer a great favor on ALFRED H. BRONSON. *Rensselaerville, N. Y.*

THE LLAMAS.—In our last we inserted an inquiry, as to whether the Llamas recently imported, are "the Alpaca or Vicuna." We have since received several other inquiries to the same purport. One gentleman says—"If they are the genuine Alpaca, I should like to experiment with them, and I presume others would." Will the importers please enlighten our readers on the subject?

☞ *R. N. C.* will find a full report of the awards of premiums on the machines tried at Syracuse last summer, in this paper, which will afford an answer to his inquiry.

POT AND PEARL ASHES.—*S. A. McM.* We do not know where to refer you for information in relation to the manufacture of these articles.

MUCK FOR UPLAND.—What effect would the muck from a cranberry marsh have on upland, there being one upon my land of 3½ acres, which I have had just grubbed—would it grow corn, root crops, &c.? J. A. D. [The application of swamp muck generally benefits upland, if heavily applied. We have known it to double the crops, but more commonly the result is not striking, and not unfrequently it is imperceptible The beneficial effect no doubt depends much on the previous condition or composition of the upland soil, and the amount of vegetable matter it may contain, and also on the nature of the muck. We prefer to use it first, after being well dried, as an absorbent of liquid in the barn-yard.

The swamp itself, after being thoroughly drained, will produce flat turnips, broom corn, and often oats and Indian corn, if the latter is the earliest kind, so as to escape the frosts to which muck land is eminently liable.

WIRE FENCE.—Will you or some of your correspondents, inform me through THE CULTIVATOR, of the best plan for a cheap wire fence. S. W. J. [We have never yet been able to find the two qualities of cheapness and efficiency combined in a wire fence. We have heard of their being made of small wire for twenty-five or fifty cents a rod—but all we have seen of this kind were worthless. No. 9 wire, which is but little more than one-eighth of an inch in diameter, is often recommended, but it is quite too small. No. 4 wire, (one-fourth of an inch,) is small enough. Fence made of this will cost a dollar and a half or two dollars a rod, if well constructed.]

ROSE ACACIA.—Please inform me through the Cultivator, how the Acacia Rose, (Robinia hispida, or Moss Locust,) can be propagated, and if propagated from seed how to manage it with success. M. C. L. [The Robinia hispida commonly increases rapidly by suckers—it doubtless might be easily raised from cuttings of the root, in the way so commonly adopted at the present time among nurserymen for the increase of raspberries and blackberries. Well ripened seed would readily grow, if sown in good soil, one-half or three-fourths of an inch deep, after scalding.]

TRIMMING HEDGES.—What is the proper implement for pruning an Osage Orange hedge about five years old, which has been suffered to grow wild for the last three years? What would be the effect of cutting back such a hedge to within a foot from the ground? M. H. *Leesburg, Va.* [A bush-hook; or if this is not sufficient, a saw set on a long handle, so as to avoid the thorns. Cutting down such a hedge early or by the first of spring, would probably cause it to sprout up thickly, and, if rightly managed afterwards, to make a good and efficient hedge in a very short time. Strong hedges have been thus made in two years, in connection with proper after pruning, culture, &c.]

THE MICHIGAN PLOW.—Is the smallest size Michigan plow of too great draught for a pair of stout, able horses, at a depth of 7 inches, in a soil where a pair of small horses (14¼ hands high) walk along easily with a *Prouty*, to that depth, and will it work advantageously in a soil already loose and mellow by cultivation for root crops? PLOUGHMAN. *Burlington, N. J.* ["Stout and able" being comparative terms, we an not answer with great precision, but we have no doubt a Michigan plow would run seven inches deep with ease, when a weaker team draws a common plow as deep. We have not, however, found the smallest size Michigan to do its work handsomely at a less depth than nine or ten inches, requiring from three to four horses. The best work we ever performed with this plow, was the largest size drawn by three yoke of oxen (two yoke were not stout enough) to a *measured* depth of twelve or thirteen inches. The loosened bed of earth, thrown up by the mould-boards, was about twenty inches deep. It will work advantageously in a loose mellow soil.]

ADDRESS.—Please give me the address of "B. J. T. of Grundy, Tenn.," who inquires through the Co. Gent. of Oct. 20, about the "durability of threshers with cleaners attached," and "where and by whom are the best lever power threshers made;" and also the address of "J. W. P., Cass Co., Ga.," in Co. Gent. of Dec. 24. MILLESOR CARVER. *Brownsville, Pa.* [We cannot do it. Perhaps the gentlemen will answer for themselves.]

LEGHORN FOWLS.—Can you inform me through the "Cultivator," where, and at what price, I can get the "Leghorn" fowl, or their eggs? G. K. O. [We think the birds can be procured of R. P. PEARSALL, Harlem, N. Y., though they are not mentioned in his advertisement.]

REINS AND LONG TAILS.—Having seen in the Co. Gent. some inquiry for a preventive of horses throwing their tails over the reins, and not having seen any given, except to nick and dock, and as some of your readers, (and your humble servant among them,) have a particular aversion to that remedy, I thought I would give you an idea of mine, which I have tried with very good success during fly time, on a five year old mare. It is simply this: Pass one rein around the other, so that they will be united directly over the tail; or what is better, fasten a small ring to one rein, over the tail, and pass the other through it; in that way the horse cannot get his tail over one rein without both, and they could be held with sufficient force to prevent his clinging them under. D. S. *Springfield, Vt.*

WORMS IN HOGS.—Can you inform me through the Cultivator how to expel worms from hogs. I had some last fall that were full from one end to the other, of the long red worm, and in consequence of which they would not fatten; they would eat just enough to keep them

alive. Any information in regard to the above will be gladly received. J. B.

Inquiry.—I have an inquiry to make of you or of some of your correspondents, through the Cultivator. It is this: I have a fine young milch cow, which emits the milk from her teats in very small streams, and I wish to know what can be done to remedy it. P. M'C.

A Jumping Ox.—I have an ox that jumps, but does not throw fence. What is the best preventive? A Life Subscriber. *Ohio.*

Stubborn Horse.—I purchased a fine five year old mare, which foaled this spring, and she is the most stubborn beast I ever saw. I tried coaxing, but it was of no use, and I will wait for your answer before trying anything else. She harrows well, and in winter goes well enough, but when at the plow or on the cart, it is a wear and tear of conscience to use her. Please let me know if there is a way of breaking her in. N. *St. M., C. E.*

Construction of Poultry Houses.

In the construction of poultry houses but very few objects are to be aimed at, but these are of the utmost importance. They are, however, consistent with entire simplicity and economy; and most of the fixtures put up in poultry houses at a considerable expense, are not only useless, but are positively in the way of securing the advantages to which we refer; these are cleanliness, ventilation, and protection from the weather. In descriptions of this kind, these little particulars, which are just the things that the inexperienced want to know, are almost always omitted by the writers, because being so familiar with them themselves, they consider them too trifling to be mentioned, forgetting how great an advantage this trifling knowledge has been to them. We shall therefore be more particular than may be thought necessary, as our articles are intended solely for beginners.

We would insist, in the first place, upon a poultry house covering as much ground as possible, to afford room for the fowls to walk about under cover in bad weather. But it is not necessary that it should be very high, either for the nests or roosts. Nests even on the ground, are preferable to the high shelves often seen which the fowls are very apt to convert into roosting places. And as to the roosts, fowls are very easily satisfied with roosts of a moderate height, say 4 or 5 feet, if there is nothing higher to attract them. Roosts of this height are much more convenient for the examination of the poultry at night, to detect sickness, or select fowls for the table. We prefer a house, the length of which is at least double its width. Ours is 24 feet long and 8 feet wide, in the form of a shed, 8 feet high in the front and about 5 in the rear, so that all the water is carried off at the rear into a gutter. It is situated on a slope fronting the south, and dug somewhat into the hill behind, for the purpose of banking it well, to keep out the frost. The whole of the front is composed of glass windows, sliding by each other in a horizontal frame; with the exception of four or five feet partitioned off at one end for nests. The expense of the glass is trifling in comparison with the benefit derived to the poultry, from having sunshine and light without exposure to the weather.

Let the roof, with the northern and eastern sides, be perfectly tight, to exclude cold winds and driving rains, but do not be too particular about having the windows fit perfectly tight in front, as ventilation is absolutely necessary, and leaving the windows open in front all night when the weather is not severe, is much better than having a little hole open at each end of the house, to cause a draft completely through, often directly upon the heads of the fowls, which is far more injurious than entire exposure. The roost may run along the back of the large room about two feet from the wall, and if not more than three feet from the ground, will require no ladder.

It will be seen that I have made no provision for a roosting place separate from this room intended for a walk for the fowls in stormy weather. Nor is it necessary if it be cleaned daily, the trouble of which is really less than cleaning once a month. And it is certainly better for the fowls to roost in a spacious room, kept clean, than to be crowded into a small house, almost air-tight, to inhale constantly the effluvia from the droppings of two or three, or perhaps six months, which are not removed for this length of time, because forsooth it is only the roosting place.

If you have, as you should have, a high yard around your poultry house for the purpose of restraining the range of the fowls when desired, then in pleasant weather the whole front of the house can be left open at night without danger from thieves, either two or four-legged.

Now as to fixtures, let there be absolutely none, except movable ones, which can be taken out in a few minutes, so as to allow every crevice and corner to be visited occasionally with boiling hot white-wash, to drive away vermin. Let the roost be, if possible, one plain, long pole, set in brackets at each end, so that it can be removed and cleaned or burned up and another substituted. The floor must by all means be the bare ground well covered with a mixture of mortar and ashes, trodden perfectly hard, except a hole in the corner filled with ground plaster and ashes for the fowls to dust themselves in. Sift occasionally a little ground plaster or ashes over the whole floor, and also over the shelves on which the nest boxes are placed, as this will allow of the droppings being more easily removed. In the spring you can remove the whole floor, to the depth of two or three inches, to your garden, and replace it with another. By this plan you can easily detect rat holes, and avoid the collection of filth and vermin beneath a board or brick floor.

The end partitioned off for nests may have two stories, so contrived that when hens commence setting on the ground floor, the laying hens can be diverted to the second story, say four feet above the other. The boxes for nests should be from fifteen inches to two feet square, and about nine inches deep, with the middle half of one side sawed out half way down, to allow the hen to pass out and in without injury to the eggs. They must have no fastenings whatever, but be made of sufficiently thick boards to stand firmly by their own weight. Make them as tight as possible, and pour a little turpentine in the crevices; then cover the bottom with wood ashes, and make the nest of clean straw, which is not so favorable to the production of vermin as hay. But we will leave the further consideration of this part of the business to some other time. Such a house as has been described, will, when whitewashed thoroughly, within and without, probably combine the essentials of room, cleanliness and protection for twenty-five or thirty fowls at as little expense as any other, and far less than some we have seen with all sorts of fixtures, of no use but to secrete vermin. H. *Ellicott's Mills, Md.*

Notes for the Month.

Awards of our January Prizes.

The following amounts are awarded in pursuance of our offer of New-Year's Premiums:

HENRY WILLIS, Connecticut,....	TWENTY-FIVE Dollars.
I. W. BRIGGS, Wayne Co.,.....	TWENTY Dollars.
J. R. HOWARD, Massachusetts,....	TWENTY Dollars.
Westchester Co. (Pa.) Ag. Society,	FIFTEEN Dollars.
A. S. MOSS, Chautauque Co.,.....	FIFTEEN Dollars.
E. BENEDICT, Clinton Co., ...	FIFTEEN Dollars.
WM. CARPENTER, New-Jersey,....	TEN Dollars.
J. A. HORTON, New-Jersey,.....	TEN Dollars.
E. MERRITT, Dutchess Co.,.....	TEN Dollars.
L. SELLECK, Orange Co.,.....	TEN Dollars.
J. C. CARLISLE, Jefferson Co., ...	FIVE Dollars.
JAMES LYON, Steuben Co.,.....	FIVE Dollars.
C. B. SHELDON, Delaware Co.,....	FIVE Dollars.
O. P. KNAPP, Niagara Co.,.....	FIVE Dollars.
Bucks Co. (Pa.) Ag. Society, ...	FIVE Dollars.

Several lists, whose senders' names would have been entitled to rank with the above, were not mailed to us in time; but they, together with those who are now successful, and others from whom we have yet to hear, will all compete for the April Prizes. We trust that efforts will be renewed and that we shall have the pleasure of being able to announce with the next awards, the gratifying fact that our subscription lists for 1858 are larger than ever before.

The sums above mentioned are respectively placed to the credit of the gentlemen or societies named, and await their orders.

With many thanks for the kind exertions of our friends in all parts of the country in support of both the COUNTRY GENTLEMAN and THE CULTIVATOR, we can but also intimate our hope that they will keep up their public spirited labors during the winter and spring; and that, undiscouraged by "hard times" and an apathy more general than usual, on the subject of agricultural progress, each will persevere until he succeeds in eliciting such additions to the ranks of our subscribers as we are happy that we can already acknowledge from numerous localities. The first prize above, is awarded on a list of subscribers to the COUNTRY GENTLEMAN, with but few exceptions, wholly new, and many of the others manifest a striking increase over previous years. Try and keep all old subscribers, as the first point, and as the second, don't be discouraged if your list has but one or two to start with. We will supply specimen numbers with pleasure for those unacquainted with the paper.....We republish the list of

PRIZES TO BE AWARDED APRIL 10.

1. For the largest amount of cash subscriptions to our Journals, at the lowest Club Rates, received at this office APRIL TENTH, or previously, we will pay, TWENTY-FIVE DOLLARS.
2. For the TWO next largest amounts, each, TWENTY DOLLARS.
3. For the THREE next largest amounts, each, FIFTEEN DOLLARS.
4. For the FOUR next largest amounts, each, TEN DOLLARS.
5. For the FIVE next largest amounts, each, FIVE DOLLARS.

☞ And that those who did not begin canvassing early enough for the January prizes, or who took one of the two lowest offered, (eiher $10 or $5) may have some inducement to compete more vigorously for the April list—should the first of the above premiums be taken by any one who in January received neither a first, second or third prize, we will make it THIRTY-FIVE instead of *Twenty-five* Dollars; and should either second or third prize be taken under similar circumstances, we will increase them each $5, (making them respectively $25 and $20.)

CAULIFLOWERS HEADED IN WINTER.—We have just had a fine present of a cauliflower, set in a cellar for heading, just at the commencement of winter, when it was not as large as a common sized fist. Now, it is beautifully headed and measures ten inches in diameter,—and we learn that it is only one of many. They were merely taken up with the roots, and deposited vertically on the cellar bottom.

ALBANY STRAWBERRY PLANTS IN MISSOURI.—We received some time since, a letter under date of Dec. 21st, from a correspondent in Clark Co., Missouri, who last fall ordered from Mr. JOHN DINGWALL of this city, a thousand plants of the Albany Strawberry. We were somewhat in doubt of their transportation so far with safety, but are pleased to learn that they all arrived living, though, from negligence in setting them out, about half the plants were subsequently lost.

We could procure for our correspondent the plants he wishes in the spring. We do not know how the climate where he resides compares with ours, but presume Brinckle's Orange Raspberry would require winter protection, as it does here, and even, we believe, farther south.

COST OF CHINESE CANE MOLASSES.—There are hundreds of reports in the agricultural papers, of entire success in the manufacture of molasses from the Chinese Sugar Cane. There is no longer a shadow of doubt on this point. Some have succeeded in making good sugar, of which the editor of the Philadelphia *Friends' Review* lately gives several instances. But we are left entirely in the dark on the great leading point, the *actual cost*, including cultivation, manufacture, labor, and fuel. Several say the cost is *moderate*, but this is not at all definite. We lately met an intelligent gentleman from Orange county, who had given special attention to this point, and had found the molasses to cost, all things counted, a *dollar a gallon*. Can any correspondent give *particulars*, showing that it can be made for less, and *how much* less, accurately?

☞ We had occasion some time since to correct an article in the *Genesee Farmer*, in relation to the history of the different papers that have borne that title,—a correction which we much regretted that Mr. HARRIS did not do us the justice to transfer to his columns. In the January number of the same periodical, we notice a claim that it has "commenced its Twenty-Eighth year"—a claim of exactly the same merits as if a son, because he bore his father's name, should add his father's age to his own, and speak of celebrating his "hundredth birth-day" when he was himself actually 50 or 60 years old. The original *Genesee Farmer*, established and published by the Senior Editor of this paper, was consolidated with the *Cultivator* as our readers are aware, on the death of Judge BUEL in 1839. Afterwards a journal was started at Rochester, bearing for some time the title of the "*New Genesee Farmer*," which, during frequent changes of ownership, has for a number of years past dropped the *New*, and at last begins to assume the *age* as well as the *name* of its predecessor. The *N. E. Farmer* with similar reason and justice, might considerably increase its age by adding the number of years in which FESSENDEN's old N. E. Farmer was issued. We look back

with some pride upon the volumes of *our* old Genesee Farmer, and confess that we do not like to have the honor attached to them, whatever it may be, so cooly appropriated by another. Age is a good thing, but it is not one of the strongest points in the merits of our Rochester cotemporary.

An Example to the Young.—We received a club of thirteen subscribers last week from a friend in Greene Co., over *eighty-three years of age*. If younger farmers would take something of his interest in the progress of the Agricultural community, it would be well both for themselves and the country.

Dioscorea Batatas.—We have received from Mr. Wm. Adair, nurseryman, Detroit, a Dioscorea batatas, or Chinese yam, measuring 20½ inches in length and 10½ inches round, and weighing 2 lbs. 6 ounces. It is, taken altogether, the handsomest specimen of this root that we have seen. We have not followed the direction to "cook and try it," but will do so after keeping it a while on exhibition.

☞ We would invite attention, unsolicited, to the advertisement of J. M. Thorburn & Co, seedsmen, New-York. They have been from the days of Grant Thorburn, the most extensive importers of garden, field, and flower seeds, in this country, and to this house all who seek for things new and rare, have resorted for the last quarter of a century, and so far as we know, without disappointment.

Fruit in California.—One of our subscribers at Auburn, Placer Co., under date of Nov. 5th, writes as follows: "I planted out in 1854, apples, peaches, pears, strawberries, raspberries, currants, gooseberries, &c. This year they bore a large quantity of the finest fruit. My apples I am selling for 25 cents each, and my peaches for 25 cents per pound, as fast as they get ripe—strawberries and raspberries one dollar per quart, and other fruit in proportion."

The Llamas have Arrived.—The vessel having on board the Llamas, heretofore noticed as on their passage, arrived at New-York on the 15th, with forty-two on board, in good condition. These animals were brought from Guayaquil in Ecuador, and are consigned to J. I. Fisher & Sons, Baltimore.

Potato Culture.—We publish in this number a valuable artice from Mr. Howatt, giving a detailed account of his mode of cultivating the potato, which, it will be seen, is both economical and successful. We have similar statements from Mr. H. in relation to several other crops, which we shall give soon. The Prince Albert potato, grown by Mr. H., is not known in this vicinity. The first specimens we saw of it, were from Mr. Howatt; and we think its superior quality for the table, its large and nearly uniform size, together with its productiveness and freedom from disease, as cultivated by Mr. H., and also by Mr. McMahon, as described in our last no., (p. 410,) render it worthy of more extensive cultivation.

The Royal Hawaiian Ag. Society—Held its annual meeting in October—an account of which is at hand by our latest mails from the Pacific coast. The President, J. F. B. Marshall, Esq, read the Report of the Managers for the preceding year. Many new plants and seeds had been introduced and distributed The subject of a public nursery was agitated. The resources of the Society were reported at about $3,800 though the subscriptions of members were decreasing. Mr. M., in conclusion, delivered a very interesting address on the present condition and prospects of the Islands. His Excellency, R. C. Wyllie, was chosen President for the new year, and among the Vice Presidents we notice the name of His Royal Highness Prince Kamehameha. The new Managers were instructed to petition the government for an act of incorporation; also that some efficient measures be taken for the destruction of the wild dogs, which are now so destructive to sheep and goats on some of the islands.

☞ We came away from a brief call the other day at the Green-house of Mr. Dingwall, of this city, with specimens of the *Spiræa Revesiana*, a very pretty and graceful variety of this excellent plant, introduced within a few years into this country, and a decided acquisition. Also of a new *Azalea*, the *Vittata*, its petals white, faintly striped or varigated with pink. And a little sample of the *Poinsetta pulcherima*, the scarlet of which, as many of our readers are aware, is vivid and rich enough almost to dazzle the eye. Several other evidences of Mr. D.'s floricultural skill—among them some beautiful Camellias, are also before us,—and, with the neatness and thriftiness of his plants, and the economic ingenuity of his houses, which are mainly of his own construction, are worthy of much commendation.

A Hint from the Dictionary.—The origin of a word often conveys a lesson of its own, and we are reminded by a chance glimpse at Noah Webster, that he derives the verb "to manure" from roots which signify simply "to cultivate by manual labor," "to till." Milton and other early writers use it in this sense. "Manurable," meant "that may be tilled or cultivated," and "manurance" was Spenser's word for *cultivation*. Does not this show that the fertilization of the soil which experience proved to be the result of its thorough pulverization and tillage, preceded the application of other substances to secure the same object? and that, if we would farm well, we must remember not only the manure of the farm-yard, but the *manure* of the implement which *works up the ground* and commingles its particles for the absorption of the plant? Jethro Tull had more common sense in his theory, than many of his successors have been willing to allow.

Devons in California.—A subscriber at Mayfield, Cal., writes us that the Devon bull Narraganset, purchased of C. S. Wainwright, Esq., of Rhinebeck, and shipped at New-York Nov. 5th, by B. F. Reynolds, reached his destination at that place in fine order, and was much admired by all who saw him.

Guano.—It appears from a table of imports into Baltimore the past year, that 22,082 tons of Peruvian, and 6,150 tons of Columbian and other phosphatic guanos, were imported in that city in 1857. The price of Peruvian Guano from the commencement of the year until the 10th of August, was $60 per ton, less one per cent. discount for cash for quantities of 1,100 tons and upwards. On the 10th of August the Agent of the Peruvian Government advanced the price to $65, which is the price at the present time.

Ohio State Board of Agriculture.—The regular Annual Meeting of Delegates from the County Agricultural Societies of Ohio, was held in Columbus on the 9th and 10th days of Dec., inst. The question which has so long and often ocupied the Annual Meet-

ings of our State Society, viz.: the permanent location of the Shows, was warmly discussed and finally voted down. The members of the State Board for the ensuing year, were chosen the second day. Messrs. Musgrave, Stedman and Barker declined a re-election. The result after the organization of the new Board, is as follows:

President—J. M. MILLIKIN of Butler.

Treasurer—Lucien Buttles of Franklin.

Recording Secretary—N. S. Townshend of Lorain.

Members—Luther Smith of Logan, Abel Krum of Ashtabula, Alex. Waddle of Clark, T. S. Webb, of Stark, John Reber of Fairfield, John M. Trimble of Highland and L. Q. Rawson of Sandusky.

Mr. J. H. Klippart is continued as Corresponding Secretary.

The Board will hold a meeting in January, when the question of location for the next State Fair will be considered, the premium list prepared, and committees appointed.

HOGS AND CATTLE IN OHIO.—Returns in the office of the Auditor of State, are quoted in the Ohio Cultivator, showing, that the number and value of hogs and cattle in that State, stand thus:—

	1857.	1856.
Hogs,	2,331,778	1,851,124
Cattle,	1,655,415	1,687,750

The value of these compare as follows:—

	1857.	1856.
Hogs,	$6,772,470	$5,268,000
Cattle,	21,662,223	21,175,070

Showing in both instances a higher rate of valuation when the returns were last made, than that of the previous year. It is suggested that if the valuation should be taken now, there would doubtless be a marking down from these figures.

LARGE YIELD OF CORN.—One of our subscribers at St. Matthews, Ky., writes us as follows:—"Our crops generally are good, as you doubtless know. The corn and potatoes were perhaps never so *uniformly* heavy—and in many individual cases have rarely been equalled. A part of one of my fields was measured accurately, and made at the rate of 124 bushels of shelled yellow corn to the acre, three heaped half bushels of ears being reckoned a bushel." T. B.

ANNNAL MEETING OF THE ONEIDA COUNTY AGRICULTURAL SOCIETY.—The winter meeting of this Society was largely attended at the village of Verona the 7th inst. The following board of officers was elected for 1858:

President—J. WYMAN JONES, Whitestown.
Vice Presidents—George Benedict, Verona; A. Van Patten, Rome.
Executive Committee—W. O. Laird, S. C. Greenman, John Potter, G. C. Palmer, David H. Curry, John Bryden, Nathaniel S. Wright, Wm. Ferguson, Stephen A. Covell, Chas. W. Eells.
Treasurer—H. R. Hart, Whitestown.
Secretary—Sidney A. Bunce, Vernon.

Premiums were awarded on Roots, Grain and Fruits; Resolutions were passed in favor of Mr. Morrill's Bill donating public lands to Agricultural Colleges; also in favor of permanently locating the annual shows alternately at two points within the county. The Treasurer's account showed a balance on hand of $258.29.

WESTERN VIRGINIA.—You saw fit to insert a notice, descriptive of the Kanawha region, from me some months since, that has brought many letters of inquiry; I would beg leave to say, I am not a land-seller or land agent, and those that have failed to receive replies from me, will impute it to failure of mails or forgetting a postage stamp. I would say, that our mountains, in the proper sense of the word, are not really mountains, but good thumping hills with no definite direction, ranging every way. I am willing to give every information in my power in relation to lands of Western Virginia; but none but a very foolish man could expect to buy fertile land, (even if rough,) in a fine climate, near market, &c., with every convenience of a long settled New-England or New-York neighborhood, for $2 or $3 per acre. S. CLARKE. *Kanawha C. H., Va.*

CATTLE LICKING THEMSELVES.—A correspondent states that the meat of fat cattle, which have been in the habit of licking themselves, is unfit for eating—that the flesh under the skin is bloodshot and diseased, and he recommends giving such animals ashes in their feed and salt. But is it a fact that the meat of such cattle is diseased?

PRODUCTIVE COW.—Hollis Chaffin of Providence, R. I., states in the N. E. Farmer, that in Oct., 1852, he purchased a fine five year old native cow, and in February following she produced twin calves. The two next years she produced one at each birth; the fourth year she produced twins, and on the 27th of November last, which is the fifth year, she produced *triplets*, which is an increase of nine calves in five years, at five births.

A GOOD YIELD.—Since a number of your subscribers have given their experience in the "Chinese sugar cane," I will give you mine. Last spring I planted about one-fifth of an acre, which I worked up about 20th of Oct., and from the one-fifth of an acre I obtained 30 gallons of good molasses, which I consider better than any of your southern molasses.

CALIFORNIA STATE AG. SOCIETY.—At the late annual meeting of this Society, it was resolved to hold its next Fair at Marysville, and the following officers were elected for this year:

PRESIDENT—John C. Fall of Marysville.
VICE-PRESIDENTS—J. N. Sweezy, G. C. Yount, Maj. Jno. Bidwill of Yuba County; C. M. Hitchcock, San Francisco; H. W. Carpentier of Almeda; Gen. Jose Covarrubias of San Diego; I. D. Morley of Stanislaus.
COR. SEC.—O. C. Wheeler, Sacramento.
REC. SEC—George H. Beach, Marysville.
TREASURER—John A. Paxton, Marysville.

A Good Day's Work for a Boy.

A correspondent at Pleasant Ridge, Rock Island Co., Ill., whose farm we had the pleasure of visiting last summer, writes us as follows:

My son, the plow-boy, whom you will remember to have seen breaking up the prairie sod with one pair of horses at the rate of nine acres per week, wishes me to tell you, that the summer before he was 14 years old, he broke 18 acres of prairie in eleven days, with the same plow and team he had when you saw him. Also one month before he was 14 years old, he milked six cows before breakfast. Then with our hired man and his team, drove two miles into a neighbor's wheatfield; there he met two men and team, and one man to stack. The wheat was heavy, yielding thirty bushels per acre, and bound in large double-banded sheaves He pitched on ten loads of 240 sheaves each, and went three-quarters of a mile for water; then one and a half miles to dinner. In the afternoon pitched on nine more loads, and one load on to a high stack, and reach-

ed home before sundown and milked his six cows—making eight and a half miles travel out of the field, and pitching on 4,800 sheaves, weighing ten pounds each, equal to twenty-four tons, and milking twelve cows between sun. C. G. T.

A Good Cow—Guenon's Treatise.

L. TUCKER & SON—In your April number of the Cultivator, is a statement by "E M," of the yield of a "good cow," kept on grass only. She milked 62 pounds in a day in June last, and for three days in succession; and made 18 pounds and 14 ounces of butter in a week.

That was doing well, and great praise is due to the cow. But I can tell a better story.

While on a visit, last fall, at Marshall, Michigan, my friend, Ch. T. Graham, Esq., showed me his cow, which, kept on grass only, yielded milk as follows:—

1857.	June 1,.....	66	pounds and	9	ounces.
	June 2,.....	69	"	3	"
	June 3,.....	71	"	2	"
	June 4,.....	72	"	6	"
	June 5,.....	72	"	8	"
	June 6,.....	73	"	5	"
	June 7,.....	76	"		

In all the month of June, she yielded over a ton of milk!

In one week, she made nineteen pounds and five ounces of butter, besides the loss, by carelessness, of cream, supposed to be enough to make up three pounds per day.

It is worthy of remark, that this cow showed all the signs of Guenon's genuine High-cow of the first order; which signs were equally conspicuous in the calf as in the cow.

Would it not be well for our breeders to study that system, and guide their efforts for improvement by its instructions? HENRY W. TAYLOR. *Canandaigua, January* 8, 1858.

Fruit Growers' Society of Western New-York.*

The winter meeting of this Society was held at Rochester, on the 6th and 7th days of the present month. As usual there was a full attendance from a large portion of the counties embraced by the Society, from Syracuse to Buffalo.

There were several fine and select collections of fruit, among them 40 varieties of pear from ELLWANGER & BARRY of Rochester, and there were other collections of apples and pears from R. B. WARREN of Genesee Co., JOHN B. EATON of Buffalo, H. E. HOOKER & Co. of Rochester, and W. P. TOWNSEND of Lockport. S. G. CRANE presented a dish of Josephine de Malines pear, in perfect condition and of exquisite flavor. H. SPENCER of Yates county, exhibited fine specimens of the Tompkins county King apple; and J. M. WHITNEY of Rochester, a basket of very large and splendid Jonathan apples.

The following officers were elected for the year:—

President—H. P. NORTON, Brockport.

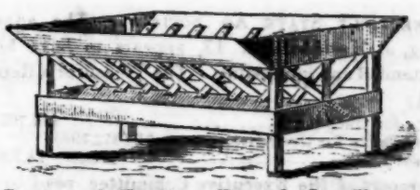
Vice Presidents—J. J. Thomas, Union Springs; W. B. Smith, Syracuse; Lewis F. Allen, Black Rock.

Secretaries—C. P. Bissell, Rochester, and John B. Eaton, Buffalo.

Treasurer—W. P. Townsend, Lockport.

Executive Committee—P. Barry, J. J. Thomas, C. L. Hoag, W. B. Smith, J. Frost.

The Society adjourned to meet at Rochester, for their summer exhibition, in early summer.



Rack and Feeding Trough for Sheep.

"My sheep waste a great deal of hay, and yet are getting poorer," remarked one neighbor to another last winter, as he asked him to look at his new sheep racks.

"No doubt of that," B. replied, "but with these racks we have *saved* a great deal of hay, and yet our sheep keep in good condition. We feed hay once a day, bean straw and oat chaff once each, and yet there is nothing wasted of either."

"I must build some for myself—give me the dimensions—they are so simple, I and my boys can get up some at home."

"Yes, these are some of our work, and we never served an apprenticeship to a joiner; we have only got part of a set of their tools to work with."

We took "the dimensions" and a sketch of neighbor B.'s racks, and now offer them to our sheep keeping readers.

Seventy-five feet of lumber will make an eight feet rack, which is perhaps the most convenient length on account of ease in moving. The posts, forty inches high, are of three inch scantling—inch boards form the remainder of the rack, and where a large flock is to be supplied, it would be well to get boards of proper length and width to work up without much sawing or waste. The width of the rack is twenty-six inches; the lower outside boards are six inches wide and twelve inches from the foot of the post. The upper boards are eight inches wide, and there is a wedge-shaped piece nailed on the outside of the post, to make the top of the rack flaring, the better to receive the fodder.

The bottom boards, eight inches wide, are fitted in against each bottom side board, and nailed there and at the ends; and two boards about ten inches wide, the edges nailed together at right angles, are placed in the center of the rack to form the remainder of the bottom. To this one end of each slat is nailed—the other end against the inside of the flaring top-board. The slats are two inches wide and about two feet long, and are placed three inches apart—the upper end bevelled to fit against the board to which it is nailed. One may be put in each end, to prevent the sheep from getting their heads into the rack.

With the aid of the cut any farmer can understand their construction. They should be set under well littered sheds, for there is no economy in feeding any animal in the rain.

An Iowa Corn Crop.

A correspondent (F. S. P.) at Oskaloosa, Iowa, says—"On the 20th and 21st of May last, I planted in Jasper County 18½ acres with the common yellow corn of this section. The land had been rented for a number of years, and though rich, was in bad condition. I planted 3½ feet apart each way, and was fortunate in obtaining good seed and a good *time* for planting. It came up even and strong, and grew steadily through the season. The first of Oct., 15 acres were cut and

CONNECTICUT STATE AG SOCIETY.—The annual meeting, at Meriden, Jan. 13, appears to have been well attended and interesting. The Treasurer's Report showed:

Receipts for the year,		$14,705 23
Disbursements for the year,	$14,672.73	
In treasury,	32.50	14,705.23

The report of the Executive Committee, read by H. A. DYER, was full and valuable. An animated discussion ensued on the expenditures of the Society. Prof. JOHNSON'S Report as Chemist to the Society, was next listened to. A present of flowers was received by the Society from HENRY WILLIS, who had contributed a considerable number of fine green-house plants to decorate the stage. The balloting for officers, with which the meeting closed, resulted as follows:

President—Hon. N. B. SMITH, Woodbury.
Vice Presidents—Charles H. Pond of Milford and Norman Porter of Berlin.
Directors—Hartford Co.—Thomas Cowles of Farmington.
New Haven Co.—Leyi Yale of Meriden.
New-London Co.—Dr. F Gulliver of Norwich.
Fairfield Co.—Eliakim Hough of Bridgeport.
Litchfield Co.—T. L. Hart of West Cornwall.
Windham Co.—Peleg C. Child of Woodstock.
Middlesex Co.—Geo. S. Hubbard of Middletown.
Tolland Co.—Rufus B. Chamberlain of Coventry.
Corresponding Secretary—Henry A. Dyer of Brooklyn.
Recording Secretary—T. S. Gold of West Cornwall.
Treasurer—F. A. Brown of Hartford.

☞ An "Association of the Grape Growers of Connecticut," was organised during the recent meeting of the State Ag. Society at Meriden, and the following officers elected:—

President—David Clark of Hartford.
Vice Presidents—L. B. Yale of Meriden, C. S. Middlebrook of Bridgeport.
Secretary and Treasurer—R. H. Phelps of Windsor.

A number of gentlemen contributed samples of wines made by them, and detailed their modes of manufacture.

Syracuse Nurseries.

OUR Stock for the Spring Trade, will consist of all the LARGER AND MINOR FRUITS:

ORNAMENTAL TREES, in great variety, including many of the native Forest Trees.

The Hardy EVERGREENS, Norway and American Spruce, Scotch Pine, Hemlock, Balsam Fir, and Arbor Vitæ, ranging from 3 to 6 feet high.

ROSES, SHRUBS, DAHLIAS, PÆONIES, PHLOXES, SPIRÆAS, HONEY-SUCKLES, of rare beauty and in great abundance.

HEDGE PLANTS of Buckthorn, Privet, Osage Orange, and Honey Locust, at very low prices.

ASPARAGUS and RHUBARB, best kinds and strong roots.

Of RASPBERRIES, GOOSEBERRIES and CURRANTS, our assortment is especially large and attractive, and embraces all the old and new sorts of worth and repute.

GRAPES: Strong Plants of the Rebecca for $3, and Delaware for $2 each; Concord and Diana for $1 each, or $9 per dozen; Catawba, Isabella and Clinton, 1 and 2 yrs. old, low by the dozen or hundred; and Foreign Grapes, in pots, in great variety.

Lawton (or New-Rochelle) BLACKBERRY; strong plants, $2 per dozen.

CHERRY STOCKS, (Mazzard,) $3.50 per 1,000.

PLUM STOCKS, (Wild, or Canada,) $8 per 1,000.

☞ Nurserymen will find these very superior.

For descriptions and prices of our articles, generally, we beg leave to refer to the new edition of our Catalogues, viz:

No. 1. A Descriptive Catalogue of all our productions.
No. 2. A Descriptive Catalogue of Fruits.
No. 3. A Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.
No. 4. A Descriptive Catalogue of Dahlias, Green House and Bedding Plants, &c.
No. 5. A Wholesale Catalogue for Nurserymen and Dealers.

Forwarded on receipt of a stamp for each.

THORP, SMITH & HANCHETT,
Feb. 4—weow6tm2t Syracuse, N. Y.

PEACH STONES!

FIFTY BUSHELS of good Peach Stones, from a region where the yellows have been always unknown, and suitable for spring planting, for sale at fifty cents per bushel (cost of boxing or barreling extra,) on all orders accompanied by cash. THOMAS & HERENDEEN,
1mo.21—w3tm1t Macedon, Wayne Co., N. Y.

SHEPPARD'S
FORWARDING & COMMISSION,
Horticultural, Nursery and Seed
AGENCY,
159 Front Street, New-York.

THE subscriber would respectfully inform the Horticulturists, Nursery and Seedsmen of the United States, Canada and Europe, that the business heretofore conducted by his father, THE LATE GEO. G. SHEPPARD, deceased, will be continued as usual, and the best attention paid to all their foreign and domestic interests.

FOR SALE,

Chinese Sugar Cane Seed,—new crop—prime and cheap.
Mahaleb Cherry Seed—prime.
Quince and Pear Stocks, &c.

Soliciting a continuance of the liberal patronage so long bestowed, very respectfully,

WM. P. SHEPPARD,
Jan. 28—w&m2t 159 Front Street, New-York.

Seeds!—Seeds!—Seeds!

THORBURN'S NEW DESCRIPTIVE CATALOGUE
Of Vegetable, Field and Fruit Seeds for 1858,
WITH DIRECTIONS FOR CULTIVATING VEGETABLES,
Is now ready, and will be sent to applicants enclosing a Three Cent Stamp.

THE subscribers offer of the growth of 1857, and of the very finest qualities, their usual extensive assortment of SEEDS, comprising many NOVELTIES, and every tested desirable variety known in the several departments of

Vegetable, Field, Flower, Tree and Fruit Seeds.

They would particularly call the attention of cultivators and amateurs to the following

CHOICE PEAS.

Extra Early Daniel O'Rourke—the earliest known.
" " Sangster's No. 1—a great favorite.
" " Tom Thumb—very fine, growing but eight inches high.
Early Sebastopol—new and good.
Champion of England—one of the very best.
Dwarf and Tall Sugar—edible pods.
Hair's Dwarf Mammoth—superb.
Harrison's Glory and Perfection—new and very productive.
Napoleon and Eugenie—both new and early, wrinkled.
Epps' Monarch—Epps' Lord Raglan—both new and superb.
Carter's Victoria—fine wrinkled.
British Queen—one of the best late.
With thirty other standard sorts, for which see Catalogue.
Also—Early Paris, Nonpareil and Lenormands Cauliflower. Early Wakefield Oxheart and Winuingstadt Cabbage.
Early and Giant White and Red Solid Celery.
Prize Cucumbers—for frames.
Early Tomatoes.
Sweet Spanish and Bull-nose Pepper
Early Curled Lettuce.
Early Curled Parsley.
Extra Early Turnip Beet.
Early White Vienna Kohlrabi.
Winter Cherry or Strawberry Tomato.
Apple and Pear Seeds.
Havana Tobacco Seed.

Dioscorea Batatas or Chinese Potato; with thousands of other Seeds of the same superior qualities as have heretofore afforded such universal satisfaction, and which can be recommended with the fullest confidence as unsurpassed for genuineness.

AFRICAN IMPHEE—genuine, as raised by Mr. L. Wray—$1 per pound.

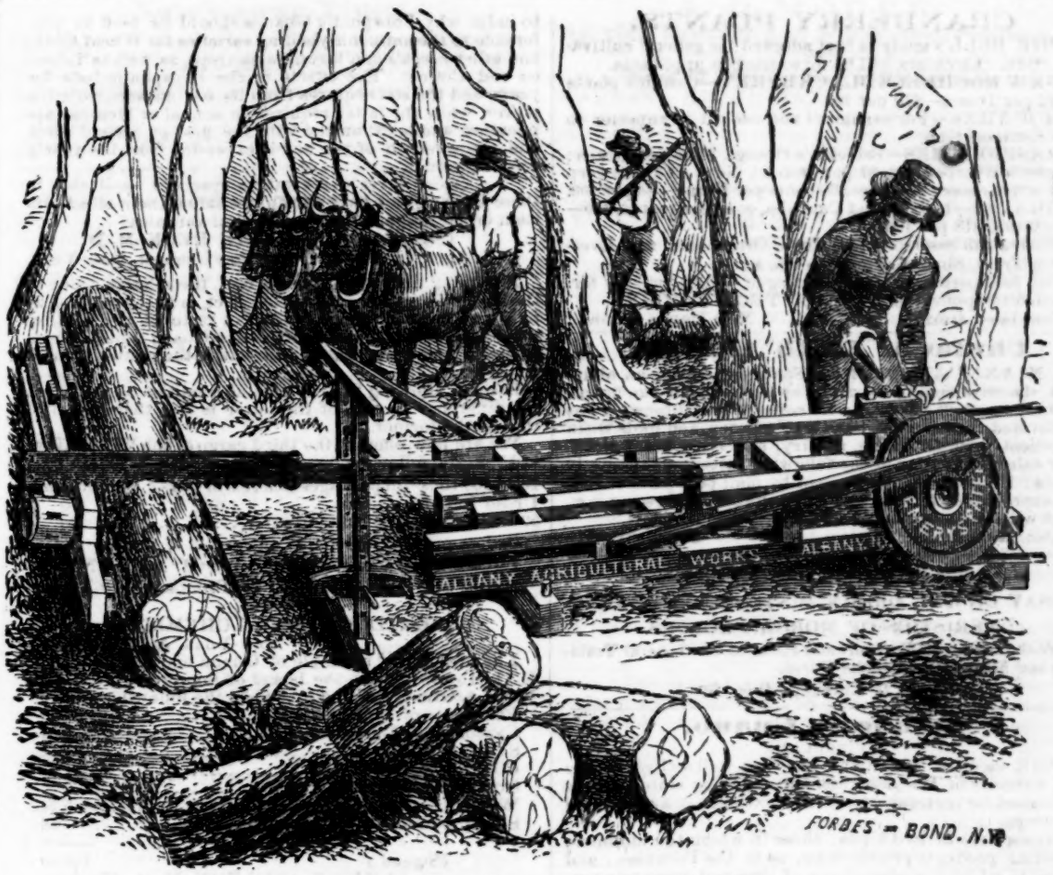
SORGHUM or CHINESE SUGAR CANE—25 cents per lb.

FLOWER SEEDS.

The collection this season is unusually large and choice, embracing many novelties.

Orders by mail will have immediate attention.

J. M. THORBURN & CO.,
Jan. 21—w&m3m 15 John-street, New-York.



EMERY'S PATENT
OSCILLATING POWER CROSS CUT SAW
For Cutting Logs for Wood, Shingles, Staves and Lumber.

THE process of cutting up logs for lumbering purposes and for firewood, as generally performed, is laborious and expensive. Two men, laboring faithfully all day long, with the two-handled crosscut saw, will accomplish comparatively but a small amount of work, while the still slower and more tedious axe makes the

"Dim aisles of the old woods ring,"

to the accumulating blows, as chip after chip is removed, while scarcely any effect is perceived.

Many attempts, more or less successful, have been made to economize in the expense and to increase the rapidity of this most important operation.

It is believed the machine represented in the above cut, embraces all the improvements hitherto discovered in such machinery, which are many and important. In constructing this machine, the manufacturers have kept in mind the fact that many a man who might be benefitted by using machinery in his various occupations, hesitates to do so on account of what seems to him of the large amount of means required to be advanced to secure such machines, and in view of the indifferent success which has been met with by others, perhaps of his acquaintances, preferring to pay a much larger aggregate sum in daily instalments as wages, and be sure of at least a tangible result, rather than to pay even a lesser amount, and run the risk of disappointment and trouble. The Manufacturers believe that if machinery is used, it MUST BE OF THE BEST DESCRIPTION, and must perform the GREATEST POSSIBLE AMOUNT OF WORK FOR THE POWER AND HELP EMPLOYED.

This machine is complete in itself, except the power for operating it. It is designed to be used with Emery's Patent Endless Chain Horse-Power, but any other adequate power may be used, if adapted to the proper speed and direction of revolution.

The teeth of the saw are made so as to cut equally both ways, and the connections are so made that a long or short sweep of the saw may be made at pleasure. The saw has a peculiar motion, which is one of the greatest of its improvements. In running forwards the HEEL OF THE SAW IS LIFTED, while in dragging backward the HEEL IS DEPRESSED. This motion causes the saw continually to cut OUTWARDS THROUGH THE BARK, carrying OUT (instead of IN,) any dirt or grit contained in the bark. This obviates the necessity of chipping off the bark to prevent the dulling of the saw. It also causes a sure and regular discharge of the sawdust as fast as it is made, no matter if the diameter of the log is equal to twice the length of stroke of the saw.

The logs are rolled upon ways, having at one end near the saw a spiked roller, and are traversed by a strong four wheeled truck. One end of the log rides on this truck, while the other end rests upon the spiked roller; this roller having a morticed head, may be easily turned by one man, and thereby the log advanced for each successive cut.

The sawing is done with great rapidity, often cutting off a log of 24 inches diameter in one minute. From 20 to 35 cord cuts may be made per day, depending upon the skill and dexterity of the operators. For further particulars address the manufacturers.

EMERY BROTHERS,
Albany, N. Y.

Jan. 28—w&m1t.

Pear Seedlings.

FINE healthy Pear Seedlings, one year, $8 per 1,000—$75 per 10,000.

Ditto, two years, $15 per 1,000—$140 per $10,000.

Norway Spruce, Scotch Larch and Fir, Apple, Mazzard, Plum, Angers Quince, Mahaleb, Paradise and Doucain stocks of the best quality. Catalogues to any address. Carriage paid to Boston or New-York.

New-England Pear Seed, $5 per quart.

B. M. WATSON,
Old Colony Nurseries, Plymouth, Mass.

Jan. 28—w&m3m

One Large 12 mo. Vol.—Price $1.50.

Downing's Fruit and Fruit Trees,

JUST PUBLISHED, and for sale at this office—sent by mail postpaid, at $1.75.

CRANBERRY PLANTS.

THE BELL variety is best adapted for general cultivation. Circulars will be forwarded to applicants.

NEW-ROCHELLE BLACKBERRY—Genuine plants at $2 per Dozen—$10 per 100.

HOP TREE—For ornament and use; it is superior to the common Hop.

RASPBERRIES—Brinckle's Orange, $1.25 per Dozen; Bagley's Everbearing, $1 per Dozen; New Red Antwerp and other choice varieties, 60 cents per Dozen—$4 per 100.

GRAPES—Isabella and Catawba, one year rooted, $10—two years, $18 per 100.

With a full assortment of Fruit, Ornamental and Evergreen Trees, Shrubs, Vines, Roses, &c.

For full particulars see Catalogue, which will be forwarded to applicants. F. TROWBRIDGE,
Jan. 14—w4tm2t New-Haven, Conn.

Chufas or Earth Almonds.

AN ANNUAL plant from Spain, producing an abundance of small tubers of a sweet chestnut-like flavor, and an excellent substitute for coffee. The subscriber has cultivated them for the last three seasons, and finds them excellent food for swine, poultry, and other farm stock. For sale for planting at the following prices: 25 tubers 10 cents; 100 tubers 25 cents; sent by mail post-paid, or 1000 by express for $1. Directions for culture, harvesting, &c., sent with each package. H. B. LUM,
Dec. 24—w4tm2t Sandusky, O.

LINSLEY'S

ESSAY ON THE ORIGIN, HISTORY AND CHARACTERISTICS OF MORGAN HORSES.

With Numerous Portraits and Hints on the General Training and Management of the Horse.

By D. C. LINSLEY—Price $1.

Sombrero Guano.

(CIRCULAR.)

THE value of this Guano has been well settled by the Farmers of Maryland and the adjoining states, and is esteemed far preferable to Peruvian Guano, in a succession of crops.

Guanos are of two kinds: those in which the ammonia yielding products predominate, as in the Peruvian; and those in which the phosphates of lime and magnesia predominate, as in the Phosphatic. The former is produced in regions where there is little or no rains, and the latter where the rains wash away a large part of the organic or soluble portions, and leave the insoluble phosphatic parts.

If we heat to redness an ammonia yielding guano, we volatize 65 to 70 per cent. of organic matter, capable of yielding ammonia and other volatile products which constitute the body of this class of Guanos. What remains after extracting the ammoniacal and phosphatic compounds is of less value, it being chiefly alkaline salts.

What effect has such an article (Ammonia yielding Guanos) upon the soil? It stimulates to an unwonted degree, and causes the soil to put forth all its strength, and forces the growth of plants into the stalk or blade, not into the grain, just as alcohol stimulates the animal to unusual exertion for the time, but which finally exhausts the system. So the ammoniacal or stimulating Guanos force the present crop at the expense of the future strength of the soil, even if the land is fertilized by other manures than Phosphates. Every farmer who has experience, knows that when he has once used such stimulating Guano for his crops, its strength is exhausted the first year; and if he would continue to grow crops, he must apply it repeatedly, and in increasing quantities.

The several analyses of this article, (Sombrero Guano,) made by the most eminent chemists of this country and England, show that more than 80 per cent. consists of the Phosphates of lime and magnesia, in an insoluble state, or in just such a condition that the roots of plants will take up and appropriate so much of the compound as is requisite to perfect the same.

If we examine the analysis of Wheat, one of the great staples of our Middle and Western States, we find that every 100 lbs. of its ashes contains from 50 to 60 lbs. of these Phosphates, which must have been taken up from the soil. A large part of these salts are required to form the hull or envelope of the kernel, and are indispensable to the perfection of the seed. (The ashes of Indian corn yield 68 per cent. of Phosphates; cotton 28 per cent., and tobacco 26 per cent.) Hence the special value of Phosphatic Guanos; and as they are only soluble by reason of the vital power of the plant, they remain in the soil as a reservoir, ready to be drawn upon only when the roots of the plant require their appropriation to perfect the growth thereof.

These reasons are sufficient to enable a practical man to judge why Phosphatic Guanos should be used in preference to the ammonia yielding varieties for Wheat, Corn, and other cereals and leguminous crops, as well as Tobacco and Cotton. The effects of the Phosphatic lasts for years, and the soil acquires from its use an accumulative power, while the latter requires an annual or biennial application, and is exhausted with the first or second crop, and the strength of the soil is expended from the yearly forced produce.

"I consider these observations specially applicable to these Guanos, as I have carefully studied their effects on such crops, and analyzed the several varieties."

(Signed,) ISAIAH DECK, M. D.,
Agricultural and Consulting Chemist, New-York.

Assuming the above to be correct, the relative value of the two Guanos, for permanent effect, is in the ratio of 24 to 85; as the Peruvian contains but 20 to 24 per cent. of the Phosphates, while the Sombrero Guano contains from 80 to 85 per cent., which fact settles the matter beyond all dispute.

Besides, allowing their fertilizing qualities to be equal, the difference in cost of the latter is less than one-third that of the former.

We are now offering the third cargo of the "E. C. Howard," on the following terms:—

10 to 100 tons—in packages (barrels or bags,) $32 nett cash.
Under 10 tons, do do 36 do
50 tons or more, in bulk, ground..... 30 do

Orders promptly executed on receipt of funds.

Imported and for sale by WOOD & GRANT,
New-York, Nov., 1857. 90 Front-st., New-York.

CERTIFICATES OF CHEMISTS.

NEW-YORK, Aug. 22d, 1857.

I have analyzed a sample of Guano marked "Cargo of E. C. Howard," from the Island of Sombrero, for Messrs. Wood & Grant, and find it to yield the following:—

Phosphate of Lime,	84.93
Carbonate of Lime,	3.63
Sulphate of Lime,	1.84
Chloride of Sodium, &c.,	1.31
Organic Matter,	2.77
Water,	5.14
Silica, Alumina, &c.,	.38
	100.00

(Signed,) JAMES R. CHILTON, M. D., Chemist.

BALTIMORE, 10th Sept., 1857.

The sample of Sombrero Guano (cargo of the Fanny O. Field) contains of

Lime,	39.90
Phosphoric Acid,	35.47
Equivalent to Bone Phosphate of Lime,	76.85

A. SNOWDEN PIGGOT.

Professor Hayes, State Assayer of Massachusetts, analyzed two samples of Sombrero Guano, and found 100 parts to consist of:—

Moisture and Organic Salts of Lime,	5.44
Bone and Phosphate of Lime,	89.60
Sulphate of Lime,	1.00
Sand and Silica,	.86
	99.90

ANOTHER SAMPLE.

One hundred parts consist of:—

Moisture and Organic Salts of Lime,	8.77
Bone Phosphate of Lime,	89.20
Sulphate of Lime,	1.00
Sand and Silica,	.47
	99.80

LIVERPOOL, England, 17th June, 1857.

Analysis of sample of Mineral Phosphate of Lime from 100 parts:—

Phosphate of Lime,	80.20
Carbonate of Lime,	6.80
Water,	3.
Siliceous and other earthy matter,	10.
	100.

GEORGE C. HUSON.

NEW-YORK, 21st Nov., 1857.

I have analyzed a sample of Sombrero Guano for Messrs. Wood & Grant, and find it to contain when dry:.. Bone Phosphate of Lime, 88 per cent. Equivalent to—

Phosphoric acid,	40.6
Lime,	47.4

Also a trace of Ammonia.

ISAIAH DECK, M. D.,
Jan. 21—w&m1t. Analytical Chemist, &c.

Now's your Time.

THE "Rural Empire Club" has an ample supply of the genuine Chinese Sugar Cane Seed, both Imported and perfectly ripened Domestic—now ready for distribution among its members and the rest of mankind, on these plain terms:

1st. By Mail, post-paid, samples for three cents—4-oz. packages for 25 cents—8-ounce packages for 50 cents, and pound packages for $1—any distance under 3,000 miles in the U. S., and FOR THE POSTAGE anywhere else.

2d. By Express, in strong sacks, and delivered to Express Co., 4 lbs. and sack for $1; 10 lbs. and sack for $2; 40 lbs. and the sack for $6.

Publishers of newspapers are at liberty to insert the above notice for the benefit of their patrons and readers.

Address I. W. BRIGGS,
Jan. 21—w&mtf West Macedon, N. Y.

RARE SEEDS.

A NEW novelty, and never before presented to market—the

NEW MEXICAN CUSHOW,

A variety that excels all others in eating, growth and rarity. (I have but few packages.) The English

MAMMOTH PUMPKIN,

that is mammoth indeed, as they frequently belt over five feet around. Also the true genuine

CHUFAS OR EARTH ALMONDS.

The seed sent post-paid, on reception of 25 cents for single packages—five packages for $1. Address, with Post-Office and State plainly written, to

JOS. L. ASHBY,
Care Dr. A. R. McKEE,
Jan 7—w10tm3t Liberty, Missouri.

THE HORTICULTURIST,

AND JOURNAL OF RURAL ART AND RURAL TASTE.

(Commenced by the late celebrated A. J. DOWNING.)

CONDUCTED BY

J. JAY SMITH, Editor of the North American Sylva.

THE increasing love of Rural Life has brought this popular publication into extended notice. Its success has been amply proved by a large addition of readers, and it is now offered to public patronage with confidence. It embraces in its scope of subjects every thing pertaining to the country and country pursuits, and aims to instruct while it amuses: it is, in short, as now conducted, a popu- RURAL MAGAZINE, designed to interest all lovers of the Garden, the Country-house, the Cottage, no less than the Botanist, the admirer of the Green-house, Conservatory, Grape-house, Fruit Cultivator and Planter. Its correspondents are those who have long devoted their energies to these pursuits, and it is believed the number of these, and the information they impart, is greater than any other periodical can boast of either in Europe or America. Indeed, the work has become indispensable to the well informed country-dweller, who by a perusal of its varied pages may maintain an acquaintance with all that is passing in the fruit-garden and orchard, the nursery, the villa, and with the beautiful in nature, whether it is improved by art or adorned by taste. In its Rural Magazine character it is addressed to all who love information, and it has thus become a welcome guest both in town and country. Its circulation now embraces the entire Union and Canada, and endeavors are constantly used to increase its attractions by a liberal outlay in embellishing it with costly engravings of fruit, dwellings, trees, and those numerous rustic adornments which make the individual home attractive.

A NEW VOLUME (13th year) commences with the January number for 1858: and it will be the constant aim to render it still more worthy, by every practicable improvement, of the liberal patronage it is receiving.

The work is issued on the first of each month, in the best style, each number containing 48 pages, embellished with a frontispiece and several other original and well executed engravings. The volumes, taken for a number of years, will make a valuable Encyclopedia of Horticultural Literature. As an advertising medium it has few superiors.

TERMS—Two Dollars a year; Four Copies for Six Dollars, payable in advance.

An edition is published with plates colored in the best style of art. Price $5.

☞ All subscriptions must be addressed to the Agents, or to ROBERT PEARSALL SMITH,
Nos. 17, 19 and 21 Minor St., Philadelphia, Pa.
Jan. 7—w&m1t.

A. O. MOORE,

Ag. Book Publisher, 140 Fulton-street, New-York.

NEW WORKS JUST PUBLISHED.

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